



COUNTY COUNCIL OF LANARK.

ANNUAL REPORTS

OF THE

COUNTY AND DISTRICT MEDICAL OFFICER

AND THE

DISTRICT SANITARY INSPECTORS

FOR THE YEAR 1928.



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GLASGOW:

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CONTENTS

SEPARATE REPORTS INCORPORATED IN THIS VOLUME.

	PAGES
County,	1-114
Bacteriological Laboratory,	21-26
Chemical Laboratory,	27-32
Rivers Pollution Prevention,	33-63
Food and Drugs,	64-73
Fertilisers and Feeding Stuffs,	74
Shops Acts,	75-77
Veterinary Inspector,	79-114
 Upper Ward District,	 115-189
Medical Officer,	115-151
Sanitary Inspector,	152-187
Midwives (Scotland) Act,	188-189
District Sanatorium, Roadmeetings,	135-137
 Burgh of Biggar,	 190-195
Medical Officer,	190-192
Sanitary Inspector,	193-195
 Middle Ward District,	 197-476
Medical Officer,	197-376
County Sanatorium, Shotts,	240-253
,, ,, Uppertown,	265-277
,, Orthopædic Hospital, Stonehouse,	254-262
,, Hospital, Dalserf,	263-264
Hairmyres Colony,	278-308
County Maternity Hospital, Bellshill,	341-361
County Convalescent Home, Calderbank,	362-366
County Hospital, Blantyre,	367-368
Midwives (Scotland) Act,	335-344
Buildings Inspector,	372-376
Meat Inspector,	377-388
Sanitary Inspector,	389-440
County Hospital, Motherwell,	441-476
 Lower Ward District,	 477-550
Medical Officer,	477-500
Sanitary Inspector,	504-543
Midwives (Scotland) Act,	501-503
Lightburn Joint Hospital,	544-550

	PAGES.			
	County.	Upper Ward.	Middle Ward.	Lower Ward.
Staff,	4-5	116	198, 372	478
Area and Population,	5-6	117	201	479
Vital Statistics—Births and Deaths, ...	6-9	117-119	201	479
Infectious Diseases,	9 13	120, 187	209	481, 532
Smallpox,	—	122	211	483
Diphtheria,	10	123	211	483
Scarlet Fever,	11	125	212	484
Typhoid Fever,	11	127	215	485
Measles and Whooping-cough,	12	140	219	488
Cerebro-Spinal Fever,	—	127	216	486
Erysipelas,	—	128	216	486
Pneumonia,	—	128	217	486
Dysentery,	—	128	217	487
Puerperal Fever,	—	129	216	496
Acute Anterior Poliomyelitis,	—	128	219	487
Malaria,	—	—	216	488
Encephalitis Lethargica,	—	128	219	487
Ringworm,	—	—	220	—
Scabies,	—	—	220	—
Chickenpox,	—	128	—	487
Tetanus,	—	—	216	—
Acute Infective Jaundice,	—	—	217	—
Diarrhoeal Diseases,	—	—	219	—
Tuberculosis,	12	132	223	490
Institutional Accommodation,	13-14	130	220	490
Venereal Diseases,	14-15	129	220	489
Anthrax,	—	129	220	489
Refractories Industries (Silicosis) Scheme,	—	—	239	—
Maternity and Child Welfare,	15	37	311	494
Housing,	16	152	369, 372 } 389 }	525
Water Supply,	—	168	419	512
Drainage and Sewage Disposal,	—	172	417	515
Scavenging,	—	177	422	525
Lighting,	—	178	—	525
Special Districts,	—	178	—	529
Nuisances,	—	179	429	—
Private Streets,	—	—	428	533
Cinemas,	—	—	431	—
Common Lodging-houses,	—	—	436	—
Burial Grounds,	—	181	460	539
Interments,	—	—	436	—
Tents and Vans,	—	—	435	539
Seasonal Workers,	—	182	415	538
Pithead Baths,	—	—	372, 432	—
House Drains,	—	—	—	531
Common Closets, Stairs, &c.,	—	—	—	572
Coal Mines Acts,	—	180	—	—
Workshops,	—	181	433	534
Schools,	—	129, 181	435	489, 533
Public Conveyances,	—	—	432	—
Meat Inspection and Slaughterhouses, ...	—	150	377, 439	—
Food Inspection,	—	—	439	—
Offensive Trades,	—	151	438	532
Piggeries,	—	—	439	539
Dairies,	—	182	436	535
Graded Milk,	18	144	370	500
Veterinary Inspection of Dairy Herds, ...	20, 79	148	309	500
Cleanliness of Non-Graded Milk, ...	18	—	—	—

STAFF.

COUNTY HEALTH DEPARTMENT.

County and District Medical Officer.

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

Assistant Health Officers and Tuberculosis Officers.

Middle Ward District—

J. M'CALLUM LANG, M.D., D.P.H.

J. R. SUTHERLAND, M.B., Ch.B., D.P.H., B.Sc.

DAVID R. HAMILTON, M.A., M.B., Ch.B., D.P.H.

EDGAR A. UNDERWOOD, M.A., B.Sc., M.B., Ch.B., D.P.H.

Upper Ward District—

ALEX. FRASER, M.D., D.P.H.

Lower Ward District—

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

Bacteriologist.

JAMES L. BROWNLIE, M.D., D.P.H.

Chemist.

WALTER BROWN, F.C.S.

Senior Inspectors—Food and Drugs, Rivers Pollution, &c.

CHARLES MACARA.

FRANK M'ARTHUR.

District Sanitary Inspectors.

Middle Ward District—

JOHN MILLAR.

Upper Ward District—

WILLIAM PATERSON.

Lower Ward District—

JOHN B. PHILIP.

COUNTY OF LANARK

(EXCLUSIVE OF BURGHS).

Report of the County and District Medical Officer.

Year 1928.

Staff.

In addition to the Medical Staff given on the opposite page, two Medical Officers are also employed in connection with the Maternity and Child Welfare Scheme in the Middle Ward District.

During the year Dr. J. R. Sutherland, who was employed as an Assistant Medical Officer of Health and Tuberculosis Officer, and also as Physician-Superintendent of the County Orthopædic Hospital, Stonehouse, and the County Hospital, Dalserf, was transferred to the staff of the Middle Ward District Committee, to allow him to devote his whole time to the duties at the two institutions.

Statistics.

The *Area* of each of the three Sanitary Districts of the County is as follows:—Middle Ward, 184,683 acres; Upper Ward, 326,803 acres; and Lower Ward, 21,101 acres.

The *Population*, as ascertained at the Decennial Censuses, 1891, 1901, 1911, and 1921, as well as the estimated population for the years 1922-1928, are given in the following tabular statement. The population, estimated to the middle of the year, is based upon the number of occupied houses, according to the Valuation Roll and the institution population in the annual Police Census:—

(Census Population.)

Year.	Middle Ward.	Upper Ward.	Lower Ward.	County.
1891, -	142,548	37,005	30,261	209,814
1901, -	179,363	40,420	*41,531	261,314
1911, -	202,663	42,978	56,974	302,615
1921, -	218,817	46,701	29,933	295,451

* Does not include the population (5,642) in the area annexed to the Burgh of Govan as from 15th August, 1901.

(Estimated Population.)

1922,	-	224,790	46,870	30,220	301,880
1923,	-	232,700	47,700	31,500	311,900
1924,	-	237,000	48,400	32,600	318,000
1925,	-	237,000	48,200	33,000	318,200
1926,	-	237,000	48,200	29,750	314,950
1927,	-	236,000	48,000	30,000	314,000
1928,	-	239,000	48,200	33,300	320,500

The reduction in the area and population through extension of Burgh Boundaries since the year 1891 was as follows:—

			Acreage.	Estimated Population.
1896—City of Glasgow,	-	-	450	632
Burgh of Wishaw,	-	-	465	1,100
1899—City of Glasgow,	-	-	370	399
1901—Burgh of Govan,	-	-	209	5,642
Do. Hamilton,	-	-	67	—
1906—Do. Rutherglen,	-	-	469	3,000
1908—Do. Motherwell,	-	-	438	3,600
Do. Lanark,	-	-	214	260
1912—City of Glasgow,	-	-	1,706	28,490
1913—Burgh of Renfrew,	-	-	216	18
1914—Do. Coatbridge,	-	-	32	4
1920—Do. Motherwell and Wishaw,	-	-	296	500
1924—Do. Coatbridge,	-	-	202	10
1925—Do. Hamilton,	-	-	898	84
1926—City of Glasgow,	-	-	3,542	4,350
1927—Burgh of Airdrie,	-	-	335	405

The Natural Increase of the Population—i.e., the excess of births over deaths—also shows a considerable decline since the decennial period 1891-1900, the figures for the three decennial periods 1891-1920, for the quinquennial period 1921-1925, and for the years 1926-8 being as follows:—

	Annual Average						
	1891-1900	1901-1910	1911-1920	1921-1925	1926	1927	1928
Natural increase, ...	4,563	5,844	4,843	4,526	4,049	3,648	3,390
Natural increase per 1,000 of the Population, ...	19.3	20.5	16.7	14.6	12.8	11.6	10.5

Rates.—For the purposes of comparison, Table A shows birth and mortality rates of each Sanitary District for the last three decennial periods, for the quinquennial period 1921-25, and for the years 1926, 1927, and 1928. It will be observed that the rates are highest in the Middle Ward District, where the employment of the population is chiefly in mining and manufacturing industries.

In each district there has been a marked decline in the birth-rate and death-rate since the decennial period of 1901-1910.

TABLE A.—SHOWING BIRTHS AND DEATHS IN EACH COUNTY
SANITARY DISTRICT; BIRTH-RATES AND DEATH-RATES PER
1,000 OF THE POPULATION; AND INFANTILE DEATHS AND
INFANT MORTALITY RATES PER 1,000 BIRTHS.

		Average 1891- 1900.	Average 1901- 1910.	Average 1911- 1920.	Average 1921- 1925.	1926.	1927.	1928.
MIDDLE WARD.—								
Births, ...	...	6,232	7,412	6,820	6,406	5,928	5,640	5,382
Birth-rates, ...	...	39.1	38.9	32.5	27.8	25.0	23.9	22.5
Infant Deaths (under one year), ...	...	809	921	754	592	489	493	491
Infant Deaths per 1,000 Births, ...	...	129.9	124.2	110.4	92.4	82.4	87.4	91.2
Deaths, ...	...	2,908	3,118	3,000	2,789	2,618	2,649	2,614
Death-rates, ...	...	18.1	16.3	14.3	12.1	11.0	11.2	10.9
UPPER WARD.—								
Births, ...	...	1,222	1,209	1,143	1,125	999	920	888
Birth-rates, ...	...	31.6	28.9	25.9	23.6	20.7	19.2	18.5
Infant Deaths (under one year), ...	...	116	104	91	81	52	64	61
Infant Deaths per 1,000 Births, ...	...	95.5	86.5	80.2	71.8	52	69.5	68.7
Deaths, ...	...	606	552	561	541	498	522	517
Death-rates, ...	...	15.6	13.2	12.7	11.3	10.3	10.8	10.8
LOWER WARD.—								
Births, ...	...	1,200	1,576	869*	651	591*	567	623
Birth-rates, ...	...	32.9	33.4	24.1*	20.6	19.0*	18.9	18.7
Infant Deaths (under one year), ...	...	150	174	88*	51	39*	46	59
Infant Deaths per 1,000 Births, ...	...	125.2	110.8	98.2*	78.6	65.9*	81.1	94.7
Deaths, ...	...	577	683	428*	326	353*	308	372
Death-rates, ...	...	15.9	14.4	12.2*	10.3	11.3*	10.3	11.1

* By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,542 acres, with a population of 4,350, took place, which affected the statistics for the year 1926.

Details with regard to the various causes of death and the births and deaths in each parish will be found in the district reports.

The following Table B gives the deaths in each of the three County sanitary areas, classified according to cause, and the death-rates per 1,000 of the population :—

TABLE B 1928.

Cause of Death.	MIDDLE WARD.		UPPER WARD.		LOWER WARD.	
	Deaths	Death-rate per 1,000 popula- tion.	Deaths.	Death-rate per 1,000 popula- tion.	Deaths.	Death-rate per 1,000 popula- tion.
Typhoid Fever, - - - - -	3	·01	—	—	—	—
Smallpox, - - - - -	—	—	—	—	—	—
Measles, - - - - -	83	·34	5	·10	6	·18
Scarlet Fever, - - - - -	7	·02	4	·08	—	—
Whooping-Cough, - - - - -	85	·35	6	·12	6	·18
Diphtheria, - - - - -	28	·11	1	·02	4	·12
Influenza, - - - - -	67	·28	10	·20	8	·24
Cerebro-spinal Fever, - - - - -	14	·05	—	—	1	·03
Erysipelas, - - - - -	9	·03	2	·04	—	—
Encephalitis Lethargica, - - - - -	6	·02	—	—	2	·06
Parotitis, - - - - -	—	—	—	—	1	·03
Malaria, - - - - -	—	—	—	—	1	·03
Tetanus, - - - - -	—	—	—	—	—	—
Dysentery, - - - - -	1	·00	—	—	—	—
Acute Infective Jaundice, - - - - -	1	·00	—	—	—	—
Pulmonary Tuberculosis, - - - - -	117	·48	20	·41	24	·72
Meningeal „ - - - - -	36	·15	4	·08	4	·12
Abdominal „ - - - - -	24	·10	3	·06	3	·09
Other Tuberculous Diseases, - - - - -	18	·07	2	·04	1	·03
Septicæmia and Pyæmia, - - - - -	7	·02	7	·14	2	·06
Rheumatic Fever, - - - - -	11	·04	2	·04	—	—
Malignant Diseases, - - - - -	237	·99	47	·97	32	·96
Meningitis (simple), - - - - -	30	·12	4	·08	—	—
Cerebral Hæmorrhage, - - - - -	168	·70	40	·82	32	·96
Other Nervous Diseases, - - - - -	62	·25	13	·26	11	·33
Organic Heart Disease, - - - - -	311	1·30	74	1·53	35	1·05
Other Circulatory Diseases, - - - - -	68	·28	15	·31	9	·27
Bronchitis, - - - - -	118	·49	25	·51	9	·27
Pneumonia (all forms), - - - - -	205	·85	38	·78	37	1·11
Other Respiratory Diseases, - - - - -	30	·12	15	·31	3	·09
Diabetes, - - - - -	20	·08	6	·12	1	·03
Pernicious Anæmia, - - - - -	12	·05	2	·04	1	·03
Diseases of Ductless Glands, - - - - -	9	·03	—	—	1	·03
Appendicitis, Typhlitis, - - - - -	24	·10	3	·06	1	·03
Liver Diseases (not Malignant), - - - - -	20	·08	4	·08	3	·09
Other Digestive Diseases, - - - - -	60	·25	11	·22	13	·39
Nephritis, Bright's Disease, - - - - -	59	·24	10	·20	12	·36
Dis. of Genito-Urinary System, - - - - -	23	·09	3	·06	3	·09
Dis. of Female Genital Organs, - - - - -	6	·02	1	·02	—	—
Puerperal Sepsis, - - - - -	25	·10	2	·04	2	·06
Dis. and Acc. of Pregnancy, &c., - - - - -	9	·03	3	·06	3	·09
Congenital Hydrocephalus, - - - - -	—	—	—	—	—	—
Congenital Heart Diseases, - - - - -	10	·04	2	·04	1	·03
Congenital Malformation, - - - - -	15	·06	3	·06	1	·03
Infantile Convulsions, - - - - -	17	·07	—	—	1	·03
Diarrhœa (under 2 years), - - - - -	54	·22	4	·08	4	·12
Premature Birth, - - - - -	104	·43	13	·26	14	·42
Injury at Birth, - - - - -	6	·02	—	—	1	·03
Atrophy, D. and M., - - - - -	76	·31	17	·35	14	·42
Atelectasis, - - - - -	5	·02	—	—	—	—
Suffocation—Overlying, - - - - -	—	—	—	—	—	—
Rickets, - - - - -	2	·00	—	—	—	—
Other Diseases of early infancy, - - - - -	1	·00	4	·08	—	—
Syphilis, - - - - -	2	·00	1	·02	1	·03
Violence, - - - - -	105	·43	16	·33	15	·45
Suicide, - - - - -	15	·06	1	·02	—	—
Other Defined Diseases, - - - - -	136	·56	74	1·53	43	1·29
Ill-Defined Diseases, - - - - -	53	·22	—	—	6	·18
	2,614	10·93	517	10·72	372	11·17

The following table gives a comparison of the County birth and mortality rates with those of the Burgh areas for the year 1928. This information has been extracted from the Annual Report of the Registrar-General. It should be noted that the figures for the three County Sanitary Districts are slightly different from the figures published by the Public Health Department, due to the fact that the Registrar-General's estimated population differs from that of the Public Health Department :—

YEAR 1928.				
	Population estimated by Registrar-General.	Birth-rate. Corrected for Transfers.	Death-rate. Corrected for Transfers.	Infantile Mortality Rate. Corrected for Transfers.
COUNTY OF LANARK—				
Middle Ward, -	228,679	23·5	11·5	92
Upper Ward, -	46,879	19·0	11·0	69
Lower Ward, -	34,325	18·1	10·8	95
BURGHs—				
Glasgow, - -	1,060,570	22·3	14·8	107
Motherwell and Wishaw, -	69,925	21·3	11·0	80
Coatbridge, -	45,963	25·3	14·2	99
Hamilton, -	41,233	23·5	12·5	95
Airdrie, - -	24,920	27·9	12·7	78
Rutherglen. -	24,049	17·8	14·2	98
Lanark, - -	6,263	18·2	12·5	61
Biggar, -	1,538	10·4	13·0	—

Prevalence of Infectious Diseases.

Table C gives the cases and deaths due to the various infectious diseases in each Sanitary District during the year :—

TABLE C.

	Middle Ward.		Upper Ward.		Lower Ward.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Smallpox, - - -	—	—	—	—	—	6
Diphtheria, - - -	627	28	88	1	72	4
Scarlet Fever, - - -	839	7	268	4	113	—
Typhoid „ - - -	28	3	—	—	—	—
Paratyphoid, - - -	—	—	—	—	3	—
Continued Fever, - - -	—	—	—	—	1†	1†
Cerebro-spinal Fever, - - -	20	14	—	—	2	1
Erysipelas, - - -	169	9	30	2	29	—
Puerperal Fever, - - -	106	25	3	2	6	2
Infantile Paralysis, - - -	14	—	3	—	2	—
Ophthalmia Neonatorum, - - -	105	—	2	—	9	—
Malaria, - - -	3	—	—	—	2	1
Dysentery, - - -	6	1	—	—	16	—
Tetanus, - - -	1	—	2	—	—	—
Primary Pneumonia, - - -	1,012	205	66	38	71	37
Influenzal „ - - -	70		2		10	
Pulmonary Tuberculosis, - - -	323	117	30	20	52	24
Non-Pulmonary „ - - -	385	78	31	9	23	8
Encephalitis Lethargica, - - -	17	6	—	—	3	2
Infective Jaundice, - - -	1	1	—	—	—	—
*Measles, - - -	—	83	—	5	—	6
*Whooping-Cough, - - -	—	85	—	6	—	6
Chickenpox, - - -	850	—	86	—	195	—

* Not being notifiable the number of cases cannot be ascertained.

† Diagnosed Malignant Endocarditis.

Diphtheria.

A—Cases per 10,000 population. B—Deaths per 10,000 population.

C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	13·9	4·9	35·1	20·0	3·69	17·8	7·5	2·47	32·6
1896-1900, -	8·5	2·0	24·3	22·0	1·46	6·53	8·4	1·73	20·4
1901-05, -	8·0	1·8	22·3	16·0	1·6	10·3	11·0	1·5	13·5
1906-10, -	19·3	2·0	10·8	36·6	1·74	4·75	26·0	1·9	7·2
1911-15, -	16·3	1·5	9·9	21·8	1·83	8·40	23·0	1·9	8·6
1916-20, -	14·2	1·3	10·0	18·0	1·5	8·5	12·0	1·2	9·7
1921-25, -	13·1	1·3	9·6	16·3	0·8	5·1	15·0	0·9	6·3
1926, -	14·9	0·7	4·5	22·2	0·8	3·7	23·8	1·9	8·1
1927, -	19·6	0·4	2·1	17·3	0·8	4·8	28·7	0·6	2·3
1928, -	26·2	1·1	4·4	18·2	0·2	1·1	21·6	1·2	5·5

In the Middle Ward District 627 cases were notified, compared with 463 in the preceding year.

In the Upper Ward District 88 cases were notified, compared with 83 in the preceding year, but the fatality rate is the lowest recorded in that area.

In the Lower Ward District 72 cases were notified, compared with 67 in the preceding year.

Scarlet Fever.

A—Cases per 10,000 population.

B—Deaths per 10,000 population.

C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	74.2	2.2	3.06	78.8	1.77	2.3	55.1	2.6	4.6
1896-1900,	61.3	2.4	3.98	82.7	2.28	2.7	58.5	2.4	4.0
1901-05, -	34.4	1.3	3.90	45.6	0.97	2.13	29.6	0.9	2.9
1906-10, -	46.7	1.1	2.54	55.2	0.70	1.27	42.1	1.2	2.7
1911-15, -	57.0	1.3	2.43	60.3	1.14	1.9	59.0	1.6	2.8
1916-20, -	43.6	0.9	2.61	35.0	0.5	1.5	21.0	0.2	1.2
1921-25, -	50.7	0.9	1.9	65.6	1.09	1.6	27.7	0.2	0.9
1926, -	37.0	0.4	1.25	30.7	0.2	0.6	25.4	0.6	2.5
1927, -	23.1	0.2	0.92	22.5	—	—	22.3	1.0	4.5
1928, -	35.1	0.3	0.83	55.6	0.82	1.5	33.9	—	—

In the Middle Ward District the number of cases notified was 839, compared with 545 last year.

In the Upper Ward District 268 cases were notified, compared with 108 in the previous year.

In the Lower Ward District 113 cases were notified, compared with 67 last year. No deaths were recorded in this area.

Typhoid or Enteric Fever.

A—Cases per 10,000 population.

B—Deaths per 10,000 population.

C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	30.9	4.2	11.95	12.2	1.5	12.4	14.0	2.2	15.5
1896-1900,	20.7	2.6	12.73	6.9	1.2	17.6	11.3	1.5	13.0
1901-05, -	15.6	2.1	13.54	4.9	0.9	18.8	8.8	1.2	13.3
1906-10, -	10.4	0.9	9.40	2.9	0.5	17.4	7.6	0.6	8.4
1911-15, -	5.4	0.5	11.09	1.4	0.3	23.3	2.5	0.5	19.2
1916-20, -	4.0	0.5	12.74	0.7	0.02	5.9	1.7	0.06	3.8
1921-25, -	2.4	0.2	10.4	0.2	0.04	25.0	0.5	0.06	12.5
1926, -	0.7	0.12	16.6	—	—	—	1.3	0.3	25.0
1927, -	0.3	0.08	25.0	—	—	—	—	—	—
1928, -	1.1	0.12	10.7	—	—	—	0.9	—	—

28 notifications were received in the Middle Ward District, but in 23 cases the diagnosis was altered as follows:—Paratyphoid B., 16; Positive Widal, 5; Dysentery, 1; and negative, 1.

The 3 cases notified in the Lower Ward District all proved to be cases of Paratyphosus B.

Measles and Whooping-Cough.

DEATH-RATES PER 10,000 OF THE POPULATION.

MEASLES.				WHOOPIING-COUGH.		
	Middle Ward.	Upper Ward.	Lower Ward.	Middle Ward.	Upper Ward.	Lower Ward.
1891-95, -	9.3	3.4	5.2	6.2	5.6	2.8
1896-1900, -	6.5	2.2	6.2	5.2	2.9	5.3
1901-05, -	4.2	0.5	4.8	5.7	2.3	6.3
1906-10, -	5.7	2.1	4.5	4.8	2.7	5.4
1911-15, -	5.3	0.8	3.0	6.1	1.6	3.4
1916-20, -	4.4	1.3	2.0	3.9	1.8	2.6
1921-25, -	3.2	1.1	1.4	4.3	2.5	1.8
1926, -	2.9	1.2	1.6	1.0	—	0.3
1927, -	0.8	0.6	—	1.4	0.6	2.6
1928, -	3.4	1.0	1.8	3.5	1.2	1.8

The deaths from these two diseases show an increase when compared with last year's figures, but compare favourably with the figures for quinquennial periods.

Of the 191 deaths recorded due to measles and whooping-cough, 87 were infants under one year of age, 96 were children from one to five years, and 8 were over five years of age.

Pulmonary Tuberculosis.

Morbidity. A—Cases per 10,000 population.

Mortality. B—Deaths per 10,000 population.

Fatality. C—Deaths per 100 cases.

Middle Ward.				Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95	—	13·5	—	—	12·0	—	—	12·8	—
1896-1900,	—	11·4	—	—	11·9	—	—	11·7	—
1901-05,	—	10·0	—	—	10·5	—	—	12·4	—
1906-10,	14·6	8·8	60·3	8·4	8·1	97·2	12·2	11·3	87·7
1911-15,	16·2	8·1	50·3	11·4	7·0	64·0	14·5	6·8	47·4
1916-20,	16·4	7·5	46·1	9·6	6·3	65·1	14·0	7·3	52·4
1921-25,	17·2	5·9	39·6	8·8	4·8	54·9	14·3	5·8	40·7
1926,	16·3	5·3	32·2	6·6	4·3	65·6	18·4	6·8	36·8
1927,	14·3	4·8	33·4	9·2	5·8	63·6	10·3	5·3	51·6
1928,	13·5	4·8	36·2	6·2	4·1	66·6	15·6	7·2	46·1

Non-Pulmonary Tuberculosis.

Morbidity. A—Cases per 10,000 population.

Mortality. B—Deaths per 10,000 population.

Fatality. C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	—	9·7	—	—	6·2	—	—	7·1	—
1896-1900,	—	8·9	—	—	4·4	—	—	6·8	—
1901-05,	—	8·2	—	—	4·9	—	—	7·2	—
1906-10,	—	8·9	—	—	4·4	—	—	7·6	—
1911-15,	—	6·9	—	—	2·8	—	—	5·8	—
1916-20,	16·3	5·3	32·4	5·6	3·3	60·0	10·3	3·5	35·5
1921-25,	20·8	4·8	23·2	6·7	2·9	44·3	10·7	2·6	24·2
1926,	20·1	3·9	19·4	6·6	2·3	34·3	8·4	2·2	26·9
1927,	16·7	3·1	18·8	5·0	2·1	41·6	8·0	2·0	25·0
1928,	16·1	3·2	20·2	6·4	1·9	29·0	6·9	2·4	34·7

In recent years there has been a slight decrease in the number of cases notified, but the deaths per 10,000 of the population show a remarkable reduction.

Institutional Accommodation.

All the institutional accommodation in the County is provided by each of the three District Committees, and details of the work carried out at the various institutions are given in the District Reports. The following tabular statement shows the institutions throughout the County and the nature of the work carried out:—

INSTITUTION.

Nature of Work.

Middle Ward District—

County Hospital, Motherwell,	All forms of acute infectious disease; surgical tuberculosis; indoor and outdoor treatment of venereal diseases; X-rays, with radiographic equipment. Recognised as a training school for nurses by the General Nursing Council.
Hairmyres Colony, by East Kilbride,	Treatment and training of adult cases of tuberculosis; light treatment; artificial pneumothorax treatment and education of children; especially those in early stages of the disease and those in whom the disease is quiescent.

INSTITUTION.	Nature of Work.
<i>Middle Ward District—</i>	
County Orthopædic Hospital, Stonehouse,	Non-pulmonary forms of tuberculosis, including orthopædic treatment—both sexes. X-ray, with radiographic equipment.
County Sanatorium, Shotts,	Pulmonary tuberculosis—both sexes. Out patient clinic with artificial light treatment.
County Sanatorium, Uppertown, Longriggend,	Pulmonary tuberculosis—both sexes. Artificial light treatment.
County Hospital, Bellshill,	Maternity Hospital for simple and complicated cases of labour. Has special wards for ante-natal and post-natal cases. Recognised by the Central Midwives Board as a training school for midwives.
County Convalescent Home, Calderbank House, Baillieston,	For mothers and children under 5 years requiring convalescent treatment.
County Hospital, Blantyre,	For mothers and babies.
County Hospital, Dalserf,	This small hospital is used for emergency purposes, but during the year was used in connection with the County Orthopædic Hospital, Stonehouse.
<i>Upper Ward District—</i>	
District Sanatorium, Roadmeetings, Carluke,	Pulmonary Tuberculosis—both sexes.
District Hospital, Roadmeetings, Carluke,	All forms of acute infectious disease.
<i>Lower Ward District—</i>	
†Lightburn Joint-Hospital, Shettleston,	All forms of acute infectious disease ; one pavilion is set aside entirely for the treatment of Lower Ward tuberculosis patients. Recognised as a training school for nurses by the General Nursing Council.

† This institution is owned jointly by the Lower and Middle Ward District Committees and by the Corporation of Glasgow in the following proportions : Lower Ward, $\frac{1}{3}$ ths; Middle Ward, $\frac{2}{3}$ ths; and Glasgow, $\frac{1}{3}$ th.

Venereal Diseases.

Since the year 1921 a joint-scheme has been in operation in the County of Lanark, this scheme including the Burghs of Airdrie, Coatbridge, Hamilton, Motherwell and Wishaw, Rutherglen, Lanark,

Biggar, and Kirkintilloch. In the County area there is now only one clinic, viz., County Hospital, Motherwell, and an irrigation station at Shotts. In addition to the clinic in the County area, there are also three clinics situated in the Burgh areas, viz., Coatbridge, Wishaw, and Hamilton.

The following tabular statement shows the number of new cases belonging to the County area dealt with at these centres:—

	Middle Ward.		Upper Ward.		Lower Ward.	
	M.	F.	M.	F.	M.	F.
Syphilis, ...	28	18	3	3	1	1
Gonorrhœa, ...	102	36	8	4	—	—
Mixed Infection,	4	3	—	—	—	—
Soft Sores and others,	67	34	9	1	1	—
	201	91	20	8	2	1

These cases were treated at the following centres:— Motherwell, 211; Hamilton, 44; Wishaw, 37; Coathill, 31.

Maternity Service and Child Welfare.

The schemes drawn up under the Notification of Births (Extension) Act, 1915, are all administered by the respective District Committees, and the details of the work carried out under these schemes are given in the District Reports. Two Medical Officers are employed by the Middle Ward District Committee to devote the whole of their time to this work, and the Assistant Health Officers also act as Medical Officers at various centres. In addition to the staff of Nurse Health Visitors employed by the District Committees, the services of District Nurses are obtained in certain rural areas as part-time Health Visitors.

Details of the work carried out at Bellshill Maternity Hospital, Calderbank Convalescent Home, and the small Institution at Blantyre are given in the Report for the Middle Ward District.

Housing.

The number of *Occupied* and *Unoccupied Houses* as given in the Valuation Roll, for each year since 1921, was as follows:—

Year	1921	1922	1923	1924	1925	1926	1927	1928
UPPER WARD—								
Occupied, -	9,754	9,858	10,109	10,225	10,218	10,165	10,152	10,193
Unoccupied,	112	102	110	117	135	164	361	458
MIDDLE WARD—								
Occupied, -	41,565	42,507	44,020	44,836	44,928	44,988	44,716	45,183
Unoccupied,	157	706	554	356	362	299	541	711
LOWER WARD—								
Occupied, -	5,779	5,842	6,092	6,322	6,433	5,958	6,153	6,868
Unoccupied,	14	18	53	16	42	29	73	71
COUNTY—								
Occupied, -	57,098	58,207	60,221	61,383	61,579	61,111	61,021	62,244
Unoccupied,	283	826	717	489	539	492	975	1,240
TOTAL HOUSES.	57,381	59,033	60,938	61,872	62,118	61,603	61,996	63,484

During the year there was a considerable increase in the number of occupied houses throughout the County and also a considerable increase in the number of unoccupied houses. A large number of unoccupied houses comprised mansion houses and houses about farm steadings, but unfortunately there is also a good number of such houses in the housing schemes of the Middle Ward and the Upper Ward District Committees.

Details of the houses erected under the various subsidy schemes are given in the District Reports.

The progress made in the introduction of modern domestic and sanitary conveniences to existing dwellings is also referred to in detail in the Reports of the District Sanitary Inspectors.

Milk (Special Designations) Order (Scotland), 1923.

On 31st December, 1928, the number of licence-holders in the County of Lanark was as follows:—

Producer's Licence—

Certified milk, ...	...	...	...	...	16
Grade A (T.T.) milk, ...	...	...	...	...	18
Grade A milk, ...	...	...	...	...	4

Dealer's Licence—

Certified milk, ...	...	...	...	...	2
Grade A (T.T.) milk, ...	...	...	...	...	3
Certified milk, Grade A (T.T.) milk, and Pasteur-	...	...	...	...	1
ised milk, ...	...	...	...	...	1
Pasteurised milk, ...	...	...	...	...	1

The following table gives the results of bacteriological examination of samples of graded milk taken during the year :—

Blood Heat Organisms per c.c.	Certified.	Grade A (T.T.)	Grade A.
Under 1,000,	18	2	—
„ 2,500,	29	17	2
„ 5,000,	24	17	2
„ 10,000,	12	22	6
„ 20,000,	3	19	3
„ 30,000,	3	6	1
„ 50,000,	1	9	2
„ 75,000,	—	1	—
„ 100,000,	—	1	—
„ 150,000,	—	3	—
„ 200,000,	—	2	—
Over 200,000,	1	1	—
	<u>91</u>	<u>100</u>	<u>16</u>

Coliform Bacilli present

in One tenth of a c.c., 11 — —

in One-hundredth of a c.c., — 14 1

Out of the 207 samples of graded milk taken, 179, or 81 per cent., complied with the bacteriological requirements of the Milk (Special Designations) Order. 28 samples taken did not comply with the bacteriological requirements in the following respects :—

2 exceeded the bacterial count.

25 did not comply in respect of the presence of coliform bacilli.

1 exceeded the bacterial count and coliform bacilli were also present.

The samples which did not conform to the bacteriological requirements of the Order were obtained from ten producers and two dealers. There were, therefore, twenty-eight producers of graded milk in the County whose milk samples were found to be free from bacteriological contamination throughout the year.

The following table gives the results of chemical examination of samples of graded milk taken during the year :—

Milk Fat per cent.	Certified.	Grade A (T.T.)	Grade A.	Non-fatty solids per cent.	Certified.	Grade A (T.T.)	Grade A.
2.8	1	—	—	7.9	—	1	—
3.0	—	—	1	8.0	—	—	—
3.1	1	—	—	8.1	—	—	—
3.2	—	—	—	8.2	—	—	—
3.3	1	2	—	8.3	—	—	—
3.4	5	1	—	8.4	—	—	—
3.5	5	5	4	8.5	2	1	—
3.6	4	6	—	8.6	—	2	—
3.7	11	6	2	8.7	3	2	—
3.8	8	13	2	8.8	5	4	1
3.9	5	11	2	8.9	10	11	—
4.0	10	14	2	9.0	23	16	5
4.1	5	13	1	9.1	11	9	4
4.2	9	6	—	9.2	15	24	5
4.3	6	8	1	9.3	14	15	1
4.4	7	5	1	9.4	4	6	—
4.5	5	1	—	9.5	1	4	—
Over 4.5	8	4	—	Over 9.5	3	—	—
—	91	95	16	—	91	95	16

From the foregoing table it will be seen that 12 samples of graded milk did not comply with the milk fat standard of 3.5 per cent. These samples were taken from eight producers and one dealer.

Cleanliness of Non-Graded Milk.

During the year 209 samples of milk taken informally under the Food and Drugs Acts were examined bacteriologically. The results of examination showed that 147, or 70 per cent., of these samples complied with the standard laid down for Grade A (T.T.) Milk and Grade A Milk, and of this number 87 also complied with the standard laid down for Certified Milk.

As pointed out in previous Reports, there is no hardship in asking all dairy farmers to comply with the standard of Grade A Milk so far as the bacteriological content is concerned, and I am of opinion that such a standard should be insisted upon by the Department of Health.

The 62 samples above the standard did not comply with it in the following respects:—

Samples containing over 200,000 blood heat organisms per	
c.c. and coliform bacilli present in .01 or .001 of a c.c.	12
Samples containing over 200,000 blood heat organisms per	
c.c., 	16
Samples with coliform bacilli present in .01 or .001 of a c.c.,	34
	<hr/>
	62
	<hr/>

Where a sample of ordinary milk is found to contain a large number of bacteria per c.c. or coliform bacilli is present in .001 c.c. a Sanitary Inspector is instructed to visit the farm concerned at milking time, and report with regard to the cleanliness of the premises and the methods employed. At the same time he suggests any improvement which he may consider will give cleaner milk. This has always had the desired effect, and subsequent samples taken have shown a satisfactory improvement.

The Food and Drugs Inspector has been supplied with a sediment tester, which he utilises when taking a sample of milk to impress the producer with regard to the cleanliness to the naked eye. Should the pad, after filtration, show marked evidence of "visible" or insoluble dirt, it is exhibited and explained to the farmer at once.

The following table shows the results of bacteriological examination of ordinary milk samples taken during the year:—

Blood Heat Organisms, per c.c.	Jan. to March	April to June	July to Sept.	Oct. to Dec.	Total.
Under 10,000 - -	19	18	10	13	60
" 30,000 - -	16	15	11	10	52
" 50,000 - -	7	9	5	2	23
" 100,000 - -	5	9	5	8	27
" 200,000 - -	5	4	6	4	19
" 300,000 - -	2	3	1	1	7
" 500,000 - -	1	—	2	1	4
" 1,000,000 - -	2	1	4	—	7
Over 1,000,000 - -	4	—	6	—	10
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	61	59	50	39	209
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Coliform bacilli present—

In one-tenth of a c.c.,	4	10	8	11	33
In one-hundredth of a c.c., - -	4	9	9	2	24
In one-thousandth of a c.c., - -	2	5	14	1	22

Veterinary Inspection of Dairy Herds.

The inspection of dairy herds throughout the County was carried out, as formerly, by the Veterinary Inspector and his Assistant, and his Report is incorporated in this volume. As on former occasions, samples of milk were drawn from all udders which, upon examination, showed conditions suspicious of any disease liable to infect or contaminate the milk. In this way 439 samples were taken and examined in the Bacteriological Laboratory, where 64 samples taken from 61 animals were found to contain tubercle bacilli, and 109 samples taken from 105 animals found to contain other infectious organisms. The animals from which the samples were drawn containing tubercle bacilli were slaughtered forthwith under the Tuberculosis Order. In connection with the samples found to contain other infectious organisms, letters were sent to the owners of the animals pointing out that it was an offence to sell milk from such a cow for human consumption, and asking them what they were doing to comply with the statute.

Bacteriological Laboratory.

JAS. L. BROWNLIE, M.D., D.P.H.

The following table shows the total number of specimens dealt with since the opening of the Laboratory in 1903, and the sources of supply :—

RECORD OF WORK DONE SINCE 1903.

Year.	Specimens.	Sources of Supply.					
		Med. Pract.	P.H. Staff.	Hosp. Staff.	Sch. Med. Staff.	Vet. Surgeons.	Slaugh. Staff.
1903	569	...	...	...	...	...	...
1904	791	...	...	...	...	...	...
1905	1,270	...	...	...	...	...	...
1906	2,061	1,651	142	209	...	59	...
1907	5,678	2,739	1,794	1,094	...	40	11
1908	8,311	4,310	1,813	1,911	...	249	28
1909	7,774	3,202	1,148	3,041	...	336	47
1910	6,945	2,951	406	3,200	29	322	37
1911	5,949	2,890	494	2,250	99	191	25
1912	6,715	3,542	753	2,193	91	117	19
1913	6,199	3,006	627	2,190	120	244	12
1914	7,193	2,481	1,314	2,985	96	295	22
1915	6,497	2,370	1,212	2,848	2	52	13
1916	3,730	2,161	535	952	...	79	3
1917	4,725	1,990	480	2,136	...	117	2
1918	6,283	1,941	745	3,514	...	81	2
1919	8,595	2,741	1,219	4,446	23	166	...
1920	9,162	3,075	1,205	4,483	90	302	7
1921	10,409	3,118	1,794	5,139	67	285	6
1922	9,702	3,108	2,475	3,803	41	243	31
1923	10,485	3,294	2,062	4,785	84	241	19
1924	11,030	3,537	2,280	4,936	70	189	18
1925	11,193	3,758	2,495	4,517	56	357	10
1926	17,327	6,472	2,769	7,232	49	796	9
1927	19,331	6,382	3,759	8,097	33	1,053	7
1928	21,059	6,051	3,472	10,525	74	934	3

The following table shows the specimens received from the three sanitary districts of the County and from other areas :—

	Upper Ward.		Middle Ward.		Lower Ward.		County Total		Other Areas.		Total.	
	+	o	+	o	+	o	+	o	+	o	+	o
SPECIMENS OF HUMAN ORIGIN—												
Tuberculosis, -	93	85	792	2,126	150	162	1,035	2,373	139	441	1,174	2,814
Typhoid Fever, —	4	76	270	3	22	79	296	5	42	84	338	
Diphtheria, -	185	703	1,570	6,967	372	1,587	2,127	9,257	225	859	2,352	10,116
Cerebro-Spinal Meningitis, —	1	7	12	—	—	7	13	4	4	11	17	
Venereal Diseases, -	6	40	213	938	12	60	231	1,038	195	558	426	1,596
Miscellaneous, —	21	10	363	390	3	57	387	457	73	92	460	549
SPECIMENS FROM ANIMALS—												
Tuberculosis, -	27	160	42	234	6	35	75	429	4	90	79	519
Anthrax, -	7	—	10	4	—	—	17	4	—	—	17	4
Scabies, -	1	3	1	5	—	—	2	8	—	—	2	8
Miscellaneous, —	—	—	12	11	—	1	12	12	—	—	12	12
Milk for bacterial count, -	136		278		28		442		27		469	
TOTAL, -	1,482		14,321		2,498		18,301		2,758		21,059	

The specimens from other areas were received from the following Local Authorities :—Hamilton, 776; Motherwell and Wishaw, 333; Airdrie, 304; Coatbridge, 612; Rutherglen, 296; Kirkintilloch, 71; Lanark, 151; Biggar, 7; Dumbarton, 34; and other Authorities, 174.

Tubercle.

3,988 specimens were examined for the presence of *B. tuberculosis*, with the following results :—

	Sputa.		Urines.		Others.	
	+	o	+	o	+	o
Medical Practitioners—County, -	92	483	3	23	1	9
„ „ Burghs, -	131	415	4	10	4	16
Hospital Physicians, -	838	1,435	8	7	24	60
Public Health Staff, -	69	351	—	2	—	3
	1,130	2,684	15	42	29	88

The following table is inserted as a matter of interest in connection with the question of the reliability of direct microscopic examination as against animal inoculation in the search for *B. tuberculosis*. It will

be seen that, out of a total of 187 submitted to both methods of examination, 22 were missed by the microscope.

	Sputa.		Urines.		Others.	
	+	o	+	o	+	o
Direct Film Examination, - -	—	82	—	26	—	79
Animal Examination, - - -	2	80	2	24	18	61

Of the 18 positive "others" 10 were specimens of cerebro-spinal fluid and 8 were specimens of pus.

Typhoid Fever.

422 specimens were examined, with the following results:—

	Agglutination Test.		Blood Cultures.		Fæces.		Urines.	
	+	o	+	o	+	o	+	o
Medical Practitioners—								
County, - -	9	61	—	—	1	17	—	2
Burghs, - -	5	35	—	—	—	7	—	—
Hospital Physicians, -	48	19	3	5	4	52	—	7
Public Health Staff, -	10	96	—	—	2	20	2	17
	72	211	3	5	7	96	2	26

Diphtheria.

12,468 specimens were examined from the following sources:—

	Throat.		Nose.	
	+	o	+	o
Medical Practitioners—County,	312	1,721	6	22
Burghs,	220	827	5	32
Hospital Physicians, -	1,248	4,455	386	947
Public Health Staff, -	160	2,082	15	30
	1,940	9,085	412	1,031

Of the primary swabs examined in direct smear preparation, 98 gave positive results.

Cerebro-Spinal Meningitis.

28 specimens were examined for the presence of the meningococcus, with positive results in 11 cases.

Venereal Diseases.

Syphilis.—1,546 specimens were submitted to the Wassermann test for syphilis. and gave the following results:—

				Blood	
				+	o
Medical Practitioners—County,	-	-		54	147
„ „ Burghs,	-	-		164	465
Hospital Physicians, -	-	-	-	129	544
Public Health Staff, -	-	-	-	6	37
				<hr/> 353	<hr/> 1,193
				<hr/>	<hr/>

Treponema Pallidum.—8 specimens were examined, with positive result in 1 case.

Gonorrhœa.—247 specimens were examined, with the following results:—

				Smears.	
				+	o
Medical Practitioners—County,	-	-		29	80
„ „ Burghs,	-	-		29	82
Hospital Physicians, -	-	-	-	4	17
Public Health Staff, -	-	-	-	—	6
				<hr/> 62	<hr/> 185
				<hr/>	<hr/>

Ophthalmia Neonatorum.—221 specimens were examined for the presence of gonococci, and 10 of these gave positive results. Of the 211 specimens giving negative results, 42 showed staphylococci, 5 streptococci, 50 B. Xerosis, 8 Koch-Weeks bacillus, 16 Fraenkel's pneumococcus, 1 Morax-Axenfeld's bacillus, and 89 no bacteria.

Miscellaneous Specimens.

Vaccines.—103 were prepared, 99 for medical practitioners, and 4 for hospital physicians. These were for the treatment of boils, acne, bronchitis, asthma, cystitis, &c.

Vincent's Angina.—44 specimens were examined, with positive results in 17.

Puerperal Fever.—114 blood cultures were examined. Streptococci were recovered in 10 cases.

Urine for Albumin.—237 specimens gave 121 positive results.

Others.—The other miscellaneous specimens included pus and urine for pathogenic bacteria; faeces for dysentery, intestinal worms, and ova; blood films for malaria and other blood diseases; hairs for ringworm; foodstuffs for the food-poisoning group of organisms; and potable and bath waters.

Specimens from Animals.

Milk for Tubercle.—575 samples of milk were received from various Veterinary Inspectors and the Public Health Staff, of which 50 were found positive by microscopic examination, and 18 by biological examination, making a total of 68 positive samples.

Oral Mucus.—11 specimens were examined, and acid-alcohol-fast bacilli were found in 8.

			Milk.		Oral Mucus.		Others.		
			+	o	+	o	+	o	
			Biolo- Smear. gical.						
Upper Ward,	-	-	17	9	160	—	—	1	—
Middle „	-	-	26	8	222	6	3	2	9
Lower „	-	-	3	1	35	2	—	—	—
Other Areas,	-	-	4	—	90	—	—	—	—
			50	18	507	8	3	3	9

All the above 575 samples of milk were also examined for other deleterious organisms (streptococci, &c.), with positive results in 130.

437 of the specimens found negative on microscopic examination were submitted to animal inoculation, and 18 gave positive results.

In one instance the sample was found to contain both tubercle bacilli and streptococci.

Anthrax.—21 specimens were submitted by the County Veterinary Inspector, and 17 were positive.

Scabies.—10 specimens were examined, with positive results in 2.

Others.—24 specimens were examined, with positive results in 12 cases—tumour formation, 2; deleterious organisms, 6; contagious abortion, 3; intestinal worms, 1.

Bacterial Content of Milk.—The results of the examination of 469 samples are classified as under :—

	Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.	85	35	5	3	27
„ 10,000 „ „	14	19	7	3	32
„ 20,000 „ „	14	19	4	1	32
„ 30,000 „ „	4	6	2	1	30
„ 100,000 „ „	4	12	2	2	48
„ 200,000 „ „	—	5	—	—	22
Over 200,000 „ „	1	1	—	1	28
Totals,	122	97	20	11	219
Coliform Bacillus present,	26	13	2	4	86

Included in the above totals are 4 Certified, 1 Grade "A" (TT), 4 Grade "A," 4 Pasteurised, and 14 ordinary samples of milk from areas other than the County. They are classified as under :—

	Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.,	4	1	1	2	2
„ 10,000 „ „	—	—	1	—	—
„ 20,000 „ „	—	—	1	1	4
„ 30,000 „ „	—	—	1	—	5
„ 100,000 „ „	—	—	—	1	—
„ 200,000 „ „	—	—	—	—	2
Over 200,000 „ „	—	—	—	—	1
Coliform bacillus present,	—	—	1	2	7

Destruction of Rats.

1,155 bottles of rat virus were supplied, free of charge on application, to farmers, householders, shopkeepers, &c.

Chemical Laboratory.

WALTER BROWN, F.C.S.

The number of samples analysed or examined during the year amounted to 4,675, an increase of 903 over last year.

The following table shows for each year since 1920 the number of samples analysed :—

SAMPLES EXAMINED IN THE CHEMICAL LABORATORY CLASSIFIED ACCORDING TO ADMINISTRATIVE AUTHORITY UNDER WHICH THEY WERE OBTAINED.

Year.	Rivers Pollution.			Public Health Department.		Food and Drugs.	Total.
	Sewage Works.	Trade Effluents.	Streams.	Water Supplies.	Special.		
1920	26	123	142	26	28	217	562
1921	20	54	62	20	97	201	454
1922	50	38	66	32	60	318	564
1923	52	48	84	17	117	155	473
1924	12	101	489	30	100	503	1,235
1925	14	413	757	83	116	829	2,212
1926	61	331	696	30	217	978	2,313
1927	96	659	1,083	47	301	1,586	3,772
1928	115	696	1,195	45	933	1,691	4,675

Samples of Sewage.

SEWAGE WORKS.—115 samples from the following sewage purification works and sewer outfalls :—Westthorn, 83 ; Bishopbriggs, 12 ; Stonehouse, 5 ; Salsburgh, 3 ; Chryston, 3 ; Strathaven, 2 ; Ashgillhead, 1 ; Rutherglen Sewer, 5 ; and Farme Estate Sewer, 1.

Samples of Trade Effluents.

696 samples were examined from the following sources :—

Effluents.						Samples.
Coal Washers, ...	...	...	...	...	...	516
Pit Waters, ...	...	...	...	...	...	62
Paper Mills, ...	...	...	...	...	...	101
Ammonia Works, ...	...	...	...	...	...	7
Lead Mines, ...	...	...	...	...	...	3
Print Works, ...	...	...	...	...	...	3
Creameries, ...	...	...	...	...	...	1
Iron Works, ...	...	...	...	...	...	1
Fish Guano Works, ...	...	...	...	...	...	2

Streams.

1,195 samples of water from streams were examined, of which 393 were analysed for evidence of sewage pollution, and 802 specially for trade waste impurities:—

Streams affected by Sewage.—River Clyde routine sampling, 310; also specially at Carmyle, 2; Threeneuk, 2; Eastfield, 2; Carbarns, 2; Lanark, 2; Westthorn, 9; Rutherglen Sewer, 4; and Farme Estate Sewer, 3; Shotts Burn, Salsburgh, 15; Bishopbriggs Burn, 6; Whitley Burn, 4; Gilgovan Burn, 4; Jock's Burn, 4; Dalziel Burn, 4; Howe Burn, 3; Bothlin Burn, 3; Cander Water, 2; Nethan Water, 2; Muir Burn, 2; Powmillon, 2; and from the Auchter, Rumbling Syke, Swinstie, Gateside, Bothlin and Tillan Burns 1 sample each.

Streams affected by Trade Effluents.—The following table gives the number of samples, the source of pollution affecting same, and the number of samples of effluent examined:—

Streams.				No. of Samples.	Affected by.	No. of Samples of Effluent.
River Clyde,	-	-	-	-	Blantyre Ferme Colliery,	- - 16
" "	-	-	-	-	Cambuslang Gas Works,	- - 1
" "	-	-	-	-	Clyde Bridge Steel Works,	- - 1
" "	-	-	-	4	Davidson's Fish Guano Works,	- - 2
" "	-	-	-	1	Ferniegair Colliery Pit Water,	- 10
" "	-	-	-	-	North Motherwell Colliery,	- - 8
" "	-	-	-	-	Priory Colliery,	- - 3
" "	-	-	-	2	Bothwell Castle Colliery,	- - 6
" "	-	-	-	2	Clyde Iron Works,	- - 2
and Battles Burn,	-	-	-	2		
River Clyde,	-	-	-	-	Parkhead Colliery,	- - 6
and Parkhead Inundation,	-	-	-	16		
River Clyde,	-	-	-	-	Hamilton Palace Colliery,	- - 7
and Hamilton Palace Ditch,	-	-	-	-		
River Clyde,	-	-	-	-	Bogleshole,	- - -
and Bogleshole Ditch,	-	-	-	1		
River Mouse,	-	-	-	33	Wilsontown Colliery,	- - 12
					" " Pit Water,	- 1
River Almond,	-	-	-	32	Hassockrigg Colliery,	- - 15
					" " Pit Water,	- - 8
" "	-	-	-	3	Muiracre Colliery,	- - 2
" "	-	-	-	9	Baton Colliery,	- - 10
and Curry Burn,	-	-	-	5		
North Calder,	-	-	-	4	Glengowan Print Works,	- - 3
" "	-	-	-	35	Caldercruix Paper Mills,	- - 71
" "	-	-	-	28	Moffat Paper Mills,	- - 30
" "	-	-	-	6	Stepends Colliery,	- - 54
" "	-	-	-	1	Gartness Colliery,	- - 9
" "	-	-	-	1	Brownieside Colliery,	- - 6
" "	-	-	-	-	Rosehall Colliery,	- - 13

Streams.	No. of Samples.	Affected by.	No. of Samples of Effluent.
South Calder, - - - -	—	Shotts Iron Works, - - -	1
„ „ - - - -	7	Carfin Colliery Pit Water, - -	9
„ „ - - - -	11	{ Glenclelland Colliery, - - -	5
„ „ - - - -	—	„ „ Pit Water, - - -	4
and Hill Glen Burn, - - -	27	{ Westwood Colliery, - - -	17
South Calder, - - - -	—	„ „ Pit Water, - - -	2
and Kingshill Ditch, - - -	43	{ Kingshill Colliery, - - -	16
Auchter Water, - - - -	3	Royal George Colliery, - - -	11
„ „ - - - -	1	Coltness Iron Works, - - -	—
Allanton Burn, - - - -	3	{ Allanton Colliery, - - -	11
Barbauchlaw Burn, - - -	20	„ Pit Water, - - -	1
„ „ - - - -	12	Dewshill Colliery, - - -	5
Blind Burn, - - - -	1	Westrigg Colliery, - - -	6
Bothlin Burn, - - - -	1	Stane Colliery, - - -	4
Butter Burn, - - - -	14	Auchengeich Colliery, - - -	6
and Meikle Burn, - - -	42	{ Cadzow Colliery, - - -	38
Car Syke, - - - -	1	{ Milnwood Colliery, - - -	22
and Milnwood Ditch, - - -	25	{ Dalquhandy Colliery Pit Water, -	7
Coal Burn, - - - -	20	Comac Oil Works, - - -	—
„ „ - - - -	1	{ Broomfield Colliery, - - -	13
Dalsarf Burn, - - - -	—	{ Woolfords Mine Drainage, - - -	1
and Broomfield Ditch, - - -	7	{ Quarter Colliery, - - -	2
Dippool Water, - - - -	1	{ Castlehill Colliery, - - -	1
Divoty Burn, - - - -	3	„ „ Pit Water, - - -	1
and Quarter Burn, - - -	11	{ Shawfield Colliery, - - -	11
Garrion Burn, - - - -	1	{ Gateside Colliery, - - -	5
„ „ - - - -	13	Leadhills Mines, - - -	3
and Brownlie Ditch, - - -	10	{ Ryeland Creamery, - - -	—
Gateside Burn, - - - -	—	{ Barblues Colliery, - - -	13
Glengonnar Water, - - -	2	{ Douglas West Colliery, - - -	2
Hall Burn, - - - -	1	„ „ Pit Water, - - -	4
and Ryeland Ditch, - - -	1	{ Lochend Colliery, - - -	1
Howe Burn, - - - -	17	{ Dechmont Colliery, - - -	2
Kennel Burn, - - - -	12	{ Knowton Colliery, - - -	9
Kirk Burn, - - - -	—	„ Pit Water, - - -	11
Light Burn, - - - -	—	{ Swinhill Colliery, - - -	—
Lingore Burn, - - - -	14	{ Cornsilloch Colliery, - - -	18
Mill Burn, - - - -	2	„ „ Pit Water, - - -	1
„ „ - - - -	20	{ Bedlay Colliery, - - -	4
and Cornsilloch Ditch, - - -	27	{ Auchlochan Colliery, - - -	4
Mollin Burn, - - - -	22	{ Auchlochan No. 9 Colliery, - -	11
and Luggie Water, - - -	2	„ „ Pit Water, - - -	12
Muir Burn, - - - -	2		
„ „ - - - -	14		

Streams.	No. of Samples.	Affected by.	No. of Samples of Effluent.
Myers Burn, - - - -	1	Uddingston Gas Works, - - -	—
Newton Burn, - - - -	—	Newton Colliery, - - -	12
Nethan Water, - - - -	—	Lesmahagow Creamery, - - -	1
Park Burn, - - - -	4	Blantyre No. 1 Colliery, - - -	—
„ „ - - - -	2	Earnock Colliery, - - -	2
„ „ - - - -	2	Greenfield Colliery, - - -	6
Pow Burn, - - - -	1	Viewpark Colliery, - - -	33
„ „ - - - -	1	Bothwell Park Colliery Pit Water, -	2
„ „ - - - -	2	Uddingston Gas Works, - - -	—
Ravel Burn, - - - -	48	Bredisholm Colliery, - - -	—
„ „ - - - -	9	Tannochside Colliery, - - -	3
Shirrel Burn, - - - -	1	Mossend Steel Works, - - -	1
„ „ - - - -	13	Holytown Colliery, - - -	3
and Holytown Ditch, - - -	6		
Shotts Burn, - - - -	54	Hirst Colliery, - - -	27
„ „ - - - -	—	Burnbrae Pit Water, - - -	1
Spittal Burn, - - - -	4	Bardykes Colliery, - - -	—
Todhole Burn, - - - -	1	Lanarkshire Steel Works, - - -	—
Dykehead Ditch, - - - -	5	Dykehead Colliery, - - -	2
Bog Inundation, - - - -	1	Bog Colliery, - - -	—
Hattonrigg Ditch, - - - -	19	Hattonrigg Colliery, - - -	6
Thankerton Ditch, - - - -	16	Thankerton Colliery, - - -	2
East Parkhead Ditch, - - -	3	East Parkhead Colliery, - - -	—
Woodhall Ditch, - - - -	8	Woodhall Colliery, - - -	4
Ross Inundation, - - - -	2	Ross Colliery, - - -	1

Water Supplies.

45 samples of water were analysed, 10 being from public supplies and 35 from private sources.

The *public water supplies* examined were:—The Middle Ward supply to “Thornwood,” Uddingston, and Gilmourton School, Avondale; the burgh of Hamilton supply to Udstonhead Farm, Strathaven; the burgh of Motherwell supply to Roadmeetings Hospital; Carluke supply; and 5 samples of water from various sources which were proposed as a supply to the Upper Ward District.

The *private supplies* examined were:—Pettinain, 4; Melburn, Biggar, 2; Hartwood, 2; Bardykes Colliery, 2; Gilbertfield Colliery, 2; Southfield Colliery, 2; Udstonhead, Strathaven, 2; Bogside, Stonehouse, 2; East Drumloch, Chapelton, 2; and from Roadmeetings Hospital; Nether Fingland Burn, Elvanfoot; Easthills, Dunsyre; Teaths, Lesmahagow; Stoneypath, Dunsyre; Pleasance, Kirkfieldbank; Weston Cottage, Dunsyre; Parkhead, East Kilbride; Mains Shaw, Uddingston; Highlees, Larkhall; Waterhead, Avondale; Thornwood, Uddingston; Nerston Cottage, East Kilbride; Lonsdale, East Kilbride; and Goslington, Stonehouse, 1 sample each.

Foods and Drugs.

1,691 samples were examined, consisting of the following:—

	No. Examined.	No. not Genuine.
Sweet Milk,	1,152	45
Skimmed Milk,	7	1
Butter Milk,	2	—
Evaporated Milk,	1	—
Condensed Milk,	1	—
Cream,	13	—
Cream Cakes,	13	—
Cakes,	8	—
Ice Cream,	1	—
Butter,	15	—
Margarine,	5	—
Mince,	224	58
Sausages,	1	—
Sausage Meat,	4	—
Sausage, Lunch,	1	—
Sausage, Liver,	1	—
Sausage, Polony,	2	—
Mince Pie,	1	—
Veal Loaf,	1	—
Chicken, Ham, and Tongue, ...	1	—
Meat Roll,	1	—
Bacon,	11	—
Boiled Ham,	1	—
Black Puddings,	27	2
Egg Substitute,	1	—
Custard Powder,	3	—
Cornflour,	2	—
Protein Food,	1	—
Ground Rice,	1	—
Barley,	76	—
Pease Meal,	3	—
Sugar,	36	—
Whisky,	40	—
Beer,	13	—
Ginger Beer,	1	—
Raisins,	1	—
Apricots,	4	—
Apples,	2	—

	No. Examined.	No. not Genuine.
Glacé Cherries,	1	—
Green Peas,	1	—
Mustard,	1	—
Sauce,	5	—
Tea,	1	—
Lemon Syrup,	1	—
Syrup of Figs,	1	—
Coffee Essence,	1	—
Seidlitz Powder,	1	—

Milk of Hygienic Quality.

244 samples of milk were examined, consisting of the following grades :—

Certified,	122
Grade A. (T. T.),	98
Grade A.,	16
Pasteurised,	8

19 of these samples did not contain the required amount of butter fat.

Special Samples.

Gravel from Leadhills, 4 samples; Cement Mortar, 1 sample; Ham for Arsenic, 1 sample; Sulphate of Alumina for water filtration purposes, 1 sample; Feeding Cake, 1 sample; and stomach contents, 1 sample.

Special milk investigation, 680 samples.

Rivers Pollution Prevention.

SENIOR INSPECTOR,

FRANK M'ARTHUR.

The work done during the year by the staff of three Inspectors is summarised in the following table:—

SOURCES OF POLLUTION.—INSPECTIONS AND POLLUTIONS DETECTED.

Nature.	SOURCES LIABLE TO POLLUTE.				POLLUTIONS DETECTED.	
	Number.	Number Inspected.	Number of Inspections.	*Samples Taken.	Number of Sources.	Number Detected.
Coal-Dross Washers, -	76	71	833	508	34	131
Lead Washer, - -	1	1	1	3	1	1
Ammonia Works, -	17	8	43	4	2	4
Paper Mills, - -	2	2	69	102	2	63
Print, Dye Works, &c.,	4	1	3	3	—	—
Chemical Work, - -	1	—	—	—	—	—
Sewage Works and Outfalls,	142	74	421	116	10	32†
Streams, &c., - -	—	136	2,420	1,258	—	—
TOTAL, - - -	—	293	3,790	1,994	49	231

* The samples analysed are dealt with in the Report of the work done in the Chemical Laboratory.

† Only one pollution is recorded against Westthorn Sewage Works, but the discharge of crude sewage was continuous throughout the year.

Trade Pollutions.

The total mining and manufacturing pollutions detected numbered 199. Of these, 131 were from coal-dross washers, 63 from paper mills, 1 from the lead washer at Leadhills, and the remaining 4 from two ammonia works. All of these sources of pollution directly discharge their effluents to streams.

COAL-DROSS WASHERS.—There are 76 coal-dross washers on the register. 833 inspections were made, 508 samples taken, and 131 pollutions, involving 34 collieries, detected. These figures are all lower than those for the preceding year.

New washers came into operation during the year at Glencleland Colliery, near Wishaw, and Hillhead Colliery, near Longriggend. The former drains to the South Calder Water, and the latter to the

Black Loch. The washer constructed in 1925-26 at Muirhead Colliery, West Benhar, had not been brought into operation at the close of the year, nor had the washer at Douglas Colliery, Rigside, although it was erected about 30 years ago.

At the following collieries, where production had either temporarily or permanently ceased, the washers were in existence during the whole or part of the year, viz., Allanton, Bog, Bogleshole, Broomside, Darn-gavil, Gartness, Home Farm, Jerviston, Kirkwood, Lochend, New Orbiston, and Swinhill.

Pollutions were detected at the following collieries :—

Allanton.	*Glencleland.
Auchlochan No. 9.	Greenfield.
Barblues.	*Hassockrigg.
Baton.	Hattonrig.
*Bedlay.	Holytown.
Blantyreferme.	*Kingshill.
*Bredisholm.	*Milnwood.
Broomfield.	Newton.
Brownieside.	North Motherwell.
*Cadzow.	Priory.
*Cornsillock.	*Quarter.
Dalquhandy.	Rosehall.
Dechmont.	*Stepends.
Douglas Castle.	Thankerton.
*East Parkhead.	*Viewpark.
Gartness.	*Westwood.
*Gateside.	*Wilsontown.

* Specially reported to the County Clerk.

With regard to the collieries at which serious pollution occurred, and on which special reports were forwarded to the County Clerk, the following notes might be made :—

Bedlay Colliery, Annathill.—Several complaints were made by the Medical Officer of Health for Dunbartonshire as to serious pollution of the Mollin Burn and Luggie Water by discharges from this colliery. The first was dated 4th April, and in connection therewith an inspection was made on 5th April. At this inspection the Mollin Burn was found to have an undoubtedly dirty appearance, but no polluting discharge could be traced at the time of inspection, and it had then little

or no effect on the Luggie Water. The condition of the stream, however, suggested previous pollution, and the manager undertook to make inquiries to see if any defect existed in the preventive measures which would allow of the occurrence of pollution.

The second complaint was made in the month of May, and was specially inquired into by the County Medical Officer on 16th May. At this inspection the Luggie Water and Mollin Burn were found to be in a badly polluted condition, and further, large deposits of coal silt were observed on the bank of the Luggie Water below the junction of the Mollin Burn. In the interval between the first and second complaints it had been ascertained, as a result of the Manager's promised inquiries, that there had been a break in the pipe leading from the washer to a settling pond situated behind the refuse bing. As this pipe runs for most of its length under the debris bing, the break had been difficult to locate, but steps were being taken to repair the defective pipe. At the inspection made on 16th May by the County Medical Officer this was again explained, as were also arrangements which had been made to discard the pipe referred to, and to lay a new overhead line of 4-inch steel pipes from the silt-recovery tank to the settling pond, so that there would be no liability to the pipe becoming defective due to the weight of the debris over it, and that also if it did become defective, repairs could be easily effected. The whole circumstances were reported to the County Clerk, and formal complaint made to the colliery owners, who replied that everything possible was being done to hurry on the work in connection with the proposed new pipe. This work was found to be completed at an inspection made on 11th July. A third communication, which was dated 28th June, referred to complaints which had been made to the Scottish Board of Health as to pollution of the Bothlin Burn, a tributary of the Luggie Water, and again made reference to pollution of the Mollin Burn from Bedlay. After completion of the remedial measures above referred to no direct pollution was detected, but on 3rd August the Mollin Burn was found to have a marked polluting effect on the Luggie Water, the polluted condition of the former stream being ascertained to be due to the fact that the burn was being cleaned out below Bedlay works at the time of inspection. On 27th September, also, on the occasion of a special inspection by the County Medical Officer, the burn was found to have a dirty appearance and to be polluted by oil.

Bredisholm Colliery, near Uddingston.—Slight pollution was detected on 13th September, due to the washings in the silt-recovery tank overflowing direct to the Ravel Burn. On 21st and 22nd September there appeared to be a considerable overflow from the settling ponds when washing was stopped for the day, while on Sunday morning, 30th September, gross pollution occurred on account of the contents of the settling ponds being deliberately discharged to the Ravel Burn. Subsequently very close observation was kept on this colliery over a considerable period, but no further pollution, or indications of pollution, of this nature were observed. Pollution, however, was detected on several occasions during October, November, and December, which was again probably due to an overflow of washings from the settling ponds when the washers stopped for the day. Arrangements were made to prevent a recurrence of pollution of this nature, and also the much more serious pollution due to the wilful discharge of the settling ponds to the Ravel Burn.

Cadzow Colliery, Hamilton.—In the early part of the year, as a result of the silted-up condition of the surface drainage settling ponds, the outfall ditch and Meikle Burn were found to be polluted. On complaint being made to the owners steps were taken to remove cause for complaint. Later a complaint was received alleging pollution of the Butter Burn in the Burgh of Hamilton. This burn receives drainage from the refuse bin to which washings from the silt-recovery tank are intermittently discharged. Inquiries were made into the complaint, and pollution, and evidence of previous pollution, detected. On attention being called to these circumstances, measures were at once taken to remove cause for complaint.

During the summer, however, verbal complaints of alleged pollution were made by riparian tenants of lands through which the stream flows and to which dairy cattle have access. Evidence of coal-dross washings pollution was observed in the stream, and inspections at the colliery showed that the settling ponds were in an unsatisfactory condition; further, on 30th July, considerable pollution was observed, due to a discharge of washings from the washer direct to the outfall ditch. This discharge was believed to be quite unusual, and steps were immediately taken to prevent its recurrence. Reports were, however, forwarded to the County Clerk with regard to the complaints, in which reference was made to the unsatisfactory condition and probable unsatisfactory operation of the settling ponds,

and to the evidence in the shape of coal-silt deposits to be found in the stream. The County Clerk wrote to the owners of the colliery regarding the matter, and there was correspondence as to the nature of the silt found in the stream, and on which cause for complaint was partly based. The owners of the colliery were of opinion that the silt deposits referred to were not deposits of coal-washings silt, but were of road-washings silt. From the physical characteristics of the silt, however, and examination by the Chemist, there was no doubt at all but that it was coal-washings silt, and from the careful observations made it was also quite clear that it had been deposited in the stream as a result of polluting discharges from the settling ponds. The stream and colliery were kept under close observation, and actual serious pollution was detected on 8th November, 6th and 19th December. Further complaint was therefore made to the owners by the County Clerk, and more correspondence ensued, in which the owners maintained their denial of the occurrence of pollution, and the question of the institution of legal proceedings was under consideration at the close of the year.

Cornsillock Colliery, near Larkhall.—On several occasions during the year pollution of the Mill Burn, a tributary of the River Clyde, occurred as a result of the outlet from the bing settling pond not being raised when required. Thus, on two occasions in January and once in March, pollution due to this cause was observed. On one of these occasions also there was surface drainage pollution, and as a complete remedy for pollution of this nature had been promised from time to time but had not been provided, reports of inspections were forwarded to the County Clerk, and the necessary work for obviating pollution from this source was subsequently completed. On 30th May and 29th November serious pollution again occurred, due to the outlet from the bing settling pond being too low. On the former date the pollution was detected in the evening when the pond outlet was found to be so low that the washings from the silt-recovery tank, which had just been completely discharged before the time of inspection, were simply overflowing almost in the condition in which they left the tank. As a result, the Mill Burn was very seriously polluted right down to the River Clyde. A report was forwarded to the County Clerk with regard to this pollution, and complaint was made to the owners. Measures were taken to remove cause for complaint.

With regard to the serious pollution detected on 29th November, remedial measures were at once adopted on verbal attention being directed to the circumstances. It might also be observed that towards the end of the year the settling pond was noted to be rapidly filling up to beyond the height at which the washings would gravitate, and that the question of providing means of pumping the washings to the pond, or of otherwise dealing with them, was receiving the close attention of the owners.

East Parkhead Colliery, Bellshill.—For some years the coal-washings from this colliery have been conveyed in the outfall ditch to an inundation lying between the colliery and the River Clyde. The upper portion of this ditch was thus seriously polluted, but no exception was taken to this, as no pollution of the ditch or River Clyde occurred beyond the inundation, which served as an efficient settling area. At inspections made during the month of May, however, it was noted that the incoming ditch conveying the washings had been diverted from the inundation by the re-forming of a channel, so that no settlement of the washings was possible. Beyond the inundation the ditch is covered over for a long distance, and at the point where it becomes open again on Raith Farm no pollution was observable for some days after the alteration referred to was made. Later, however, the ditch was found to be polluted on Raith Farm, there also being liability to pollution of the River Clyde. On verbal complaint being made, an old settling pond situated at the colliery, and which had been used many years ago for the disposal of the washings, was made serviceable to some extent, but as this was not sufficient to remove cause for complaint, a report of the circumstances was forwarded to the County Clerk, who complained in writing to the owners. Subsequently a much better settling pond was formed, the effluent from which was found to be fairly satisfactory, while the ditch immediately above and below the inundation could not be complained of.

Gateside Colliery, Cambuslang.—Pollution reported as occurring on 13th January came from two sources, first, the surface drainage settling ponds, the effluent from which was unsatisfactory, and, second, the large settling area, the effluent from which was seriously polluting. Some time previously, on complaint being made as to the unsatisfactory condition of the settling area, temporary remedial

measures were provided, and the work of improving and heightening the main bank of the area was commenced. As the temporary measures referred to, which consisted of building a coal-silt bank inside the settling area so as to sub-divide it, ultimately proved unsatisfactory, and as slow progress was made with the improvement of the main bank of the area, resulting in the serious pollution referred to (which affected the Gateside Burn through Cambuslang Golf Course right down to the River Clyde), the circumstances were reported to the County Clerk, who complained to the owners. Subsequently the surface drainage settling ponds were cleaned out, and the work of improving the bank of the settling area so far expedited as to make it serviceable. The formation of a new settling area was also begun. No further pollution was detected, but subsequent inspection of the Gateside Burn revealed deposits of coal matter, which suggested the occurrence of intermittent pollution.

Glencleland Colliery, near Wishaw.—The new coal-dross washer at this colliery was brought into operation about the end of August. The coal-washing plant previously existing was removed in 1910. The outfall is to the South Calder Water. At an inspection made on 30th August serious pollution was observed, due to the overflow from the silt-recovery tank discharging direct to the stream, the pipe through which the washings were pumped from a small sump to a hole in the refuse bing being choked up and inoperative. At this inspection a promise was given that a settling pond would be constructed in a week's time, and a beginning made at once with the formation of a pond on the bing. At an inspection made on 6th September the washings were found being pumped to the bing. On 26th September, however, serious pollution was again occurring, due on this occasion to the pipe having been rendered useless by a fall in the shaft and adjacent ground, which had occurred about a fortnight previously. At this inspection the construction of the settling pond, which had been promised would be completed three weeks before, was still incomplete. Deposits of silt and ashes from the colliery were also found encroaching on the South Calder Water, in contravention of Section 2 of the Rivers Pollution Prevention Act, 1876. A report on all these conditions was forwarded to the County Clerk. On 19th October, however, further serious pollution was detected, due to the direct discharge of the washings collected in the new pond, which was then found to have been completed. At this inspection it was found

that a pulsometer had been fitted up in the pond, for the purpose of discharging the washings to the bing, but that the necessary piping had not been provided. It was also believed that it was the regular practice to discharge the seriously-polluted contents of the pond daily to the South Calder Water. Further complaint was therefore made through the County Clerk, and at subsequent inspections made during November it was found that pipes had been laid to a pond on the bing, and the pulsometer brought into operation. It was, however, considered necessary to request that the outlet of the collecting pond should be bricked up, and also to provide means for intercepting surface drainage, which was gaining access to the pit water. The matter had not been disposed of up to the end of the year. With regard to the deposits of solid matter which encroached on the South Calder Water, referred to above, these were found at an inspection made on 13th November to have been removed.

Hassockrigg Colliery, near Shotts.—Pollution detected on 24th February was of a serious nature, so much so that a report was forwarded to the County Clerk. In this report it was pointed out that the settling pond was silted up, the washings having an almost direct discharge to the Almond Headstream, which was grossly polluted for a long distance below the colliery, and on the banks of which evidence of previous serious pollution was observed. The settling pond was cleaned out during the months of March and April. On 12th October it was again noted that the settling pond in use was almost silted up, and that there was no other pond ready to receive the washings. This was pointed out to the manager. On 20th November, however, no steps having been taken to satisfactorily clean out the settling ponds, very serious pollution was observed. A report on the matter was therefore forwarded to the County Clerk, who complained to the owners, and on 6th December it was found that a new settling pond had been constructed and brought into use. It was also learned that arrangements were being made for pumping the washings to the bing. At the same time the old settling ponds had to be cleaned out, so that they could be used if necessary.

Kingshill Colliery, near Newmains.—Since the coal-washing plant at this colliery began operations towards the end of 1926, pollution, although not of a serious nature, has been detected on several occasions. On 26th July, however, serious pollution was detected,

affecting the outfall tributary of the South Calder Water and also this stream. Inspection showed that the settling ponds were silted up and the washings discharging on to the refuse bing, but having an almost direct run to the outfall ditch without purification. The ditch was thus grossly polluted. It was also learned that several farmers had been complaining of pollution. A report was forwarded to the County Clerk. Later it was found that a new ground settling pond at the base of the refuse bing was being formed, and that the construction of brick settling ponds was also contemplated. On 27th August slight pollution was occurring from the settling ponds, and on 25th September serious pollution was again detected, on account of a workman deliberately breaking down part of the wall of two of the larger settling ponds and allowing the unpurified washings to flow into the outfall ditch. This ditch also showed evidence of serious intermittent pollution. These circumstances were also specially reported on, and in reply to a communication from the County Clerk the owners of the colliery, while admitting the serious pollution which occurred on 25th September, stated in a letter, dated 29th September, that the preventive measures then in existence were such that, with ordinary care, there should be no question of pollution, but that plans for settling ponds were in hand. On 9th October it was found that a large new pond was under construction, and that other two ponds were to be constructed, while on 19th October the first pond was found completed, and the construction of a second one commenced. On 8th November the former pond was found to be in use, and the second one almost finished. No further pollution was detected.

Milnwood Colliery, Bellshill.—Early in the year this colliery was again a source of serious pollution, the extensive settling areas being found on four occasions to be defective in some respect. Reports were therefore forwarded to the County Clerk, who complained to the owners, as a result of which much better attention was given to the settling areas in the matter of regular and satisfactory banking up. In June pollution was again noted, on this occasion, however, due to the bank of a channel which conveys the washings to the settling areas having given way. The defect was found to have been repaired when inspection was made at the colliery, pollution only having been observed in the outfall ditch lower down.

Quarter Colliery.—In February a report was forwarded to the County Clerk as to the silted-up condition of the settling area, and

consequent pollution of the Low Quarter Burn. Satisfactory temporary measures to prevent pollution were taken, and at the same time a commencement made with the heightening of the bank of the settling area from 2 to 3 feet all round. This work was duly completed and cause for complaint entirely removed.

Stepends Colliery, Plains.—It has to be recorded that the preventive measures at this colliery continued in a very unsatisfactory condition. This was reported to the County Clerk early in the year and the opinion expressed that the matter should again be specially brought before the Public Health Committee with a view to legal proceedings being taken against the owners of the colliery in respect of the continued pollution of the North Calder Water. This was duly done on 4th April, when the Committee were of opinion that a prosecution should be taken against them, and instructed that the necessary consent of the Scottish Board of Health should be obtained. The information necessary to enable him to communicate with the Board was forwarded to the County Clerk on 2nd May. Subsequently the Board intimated that their Chief Engineer would visit the colliery and inquire into the matter on 29th May. This was accordingly done, when the Chairman of the Public Health Committee and officials accompanied the Board's Inspector. Thereafter, having heard the colliery manager and officials, and having carefully considered all the circumstances, it was agreed that the owners of the colliery should be given a period of three months within which to make the preventive measures satisfactory, failing which the Board would at once grant their consent to the institution of legal proceedings. This period having expired on 30th August, the County Medical Officer specially inspected the colliery on 27th September to ascertain if the improvements promised by the owners had been given effect to. At this inspection it was found that, while certain improvements had been effected and pollution stopped in the meantime, there was no certainty that cause for complaint had been permanently removed. A full report of the inspection was forwarded to the County Clerk, who conveyed this information to the Board. The Board on considering it, together with a memorandum by their Chief Engineer on the subject, were of the opinion, as expressed by their Chief Engineer, that "while the alterations which have been made on the sedimentation plant may not have been quite what was indicated at the meeting with the Company's officials on the 29th May last, what has been done

seems to meet the case, at least in the meantime," and inquired on 18th October whether the County Council's application for consent to legal proceedings might be treated as withdrawn. A further special inspection was therefore made on 24th October, when the opinion was formed that the material of which the settling ponds on the bank of the North Calder Water was composed was unsuitable, and that unless new ponds were constructed of brick, or a bing pond formed, intermittent pollution would be liable to occur at any time, and that therefore the application should not be withdrawn. This view was placed before the Board's Chief Engineer, who was of opinion that sanction to proceedings would not be granted on an anticipation of pollution, although this might be apprehended, but that on the detection of actual serious pollution, sanction would be granted. The colliery was, therefore, still under observation in that regard at the close of the year.

Viewpark Colliery, Uddingston.—On 17th and 18th January pollution of the Pow Burn was occurring, due to the washings collecting pond being silted up and the pump not in operation and defective. As during November and December of the preceding year this colliery gave considerable trouble in connection with a defective pipe line on the bing, a report was forwarded to the County Clerk. The pump was repaired and the collecting pond cleaned out, cause for complaint thus being removed. An additional length of 75 yards of piping was also laid down to convey the washings to another new settling area on the bing, the area which had been utilised on the abandonment of a ground-surface settling area having become filled up. Pollution again, however, occurred in the month of June, due to a pulsometer becoming defective, as a result of which it was impossible to discharge the washings to the refuse bing for disposal. Every effort was made to effect repairs to the pump by the colliery engineers, and when these failed, another pump was at once obtained and fitted up until such time as the original pump was properly repaired. The substitute pump was, however, too small, and would not operate but for short periods, and pollution was observed on six occasions. When the old pulsometer, which is a very large one, was repaired and replaced pollution ceased. It was considered desirable to also report these circumstances to the County Clerk. During September and November pollution, although not of a serious nature, was again detected. At special inspections made in connection with these pollutions it was

noted that certain defects existed in the preventive measures, as a result of which serious pollution was bound to occur, especially at unusual times, such as week-ends and during the night. The defects referred to comprised (1) failure to keep the washings collecting pond sufficiently free of silt and to allow polluting discharges to overflow therefrom; and (2) failure to maintain the discharge pipe on the bing in satisfactory order. These matters were also the subject of special reports, and satisfactory measures were taken to prevent pollution.

Westwood Colliery, near Newmains.—Serious pollution was detected at this colliery on several occasions during the year. Thus on 14th March serious pollution occurred from a silted-up settling pond, a new pond which had been under construction not having been completed. A report was forwarded to the County Clerk, and, at an inspection made on 26th March, when only slight pollution was occurring, the settling pond was found to have been cleaned out. The new pond referred to had also been completed. Again on 14th June serious pollution occurred, due to washings flowing from a bing settling pond to the South Calder Water without settlement. The same thing was occurring on 26th June, but there was then less pollution than on the previous date. On 14th June it was also noted that refuse from the bing was encroaching on the stream, an infringement of Section 2 of the Rivers Pollution Prevention Act, 1876, being thus involved. A report was forwarded to the County Clerk, who complained to the colliery owners, and they undertook to remove cause for complaint of coal-dross washings pollution. They also had the bing refuse which encroached on the South Calder Water removed, and the tipping of refuse where complained of stopped. Evidence of serious pollution which had occurred was also observed on 19th December, due to the bank of a pond situated near the washer having given way. The defect was remedied.

Wilsontown Colliery, Wilsontown.—Serious pollution was detected on 16th March, due to a break in the bank of the bing pond. As at the time of inspection the washings were being pumped to the pond, the outfall stream was grossly polluted. At the same time, the ground settling ponds were unsatisfactory, and the effluent therefrom a source of pollution. A report was forwarded to the County Clerk, and measures to prevent pollution were taken. On 30th April slight pollution, due to the outlet sluice of a settling pond being too low, was

detected. On 3rd December, there was also slight pollution, due to a break in the bank of the settling pond into which the washings were being discharged at the time of inspection. On attention being drawn to this the washings were diverted to another pond, when pollution ceased.

In addition to the foregoing sources of serious pollution, reference might also be made to the action taken in connection with the following collieries, which were sources of more or less serious pollution during the year or in previous years, but which were not specially reported to the County Clerk :—

Baton Colliery, Shotts.—In the report for the preceding year reference was made to the unsatisfactory condition of the ground settling area during the last three months of the year, and the occurrence of serious pollution therefrom. Consequent on correspondence with the owners of the colliery, the County Medical Officer made an inspection on 7th January, when he met their Shotts agent. A week later pollution was again observed, but at an inspection, made on 20th January, the work of heightening the bank of the settling area, as had been promised, was found to have been satisfactorily completed and no pollution occurring. After that date also the bank of the settling area was found being further improved.

Broomfield Colliery, Netherburn.—On 16th March the effluent draining from the bing settling pond was found to be of a polluting nature. This had previously been complained of on several occasions, and with a view to preventing cause for complaint, an old pond which had given satisfactory results was brought into use again. Later the ponds complained of were again used, but with no better results. On 26th March, however, it was found that a pipe had been laid to convey the washings to an entirely new bing pond, a course which had been from time to time suggested should be adopted. This remedial measure, it was believed, would remove cause for complaint so far as the disposal of the washings from the silt-recovery tank was concerned. This tank is emptied nightly, so that a very large volume of washings has to be disposed of. Shortly after these inspections the colliery closed down for an indefinite period, and had not resumed operations at the close of the year.

Dechmont Colliery, Cambuslang. The unsatisfactory nature of the effluent from the settling ponds at this colliery on 20th January

and 15th March was due to the excessive amount of surface water in wet weather entering the ponds. Some time ago efforts were made to have measures adopted which would divert this surface water from the settling ponds, and the matter was then gone into and considered by the Road Surveyor. No solution of the difficulty was found, however.

Greenfield Colliery, Hamilton.—On the 21st February and 7th March pollution of the Park Burn was found to be occurring, due to a settling pond for surface drainage being silted up. As this colliery and the settling pond referred to are within the Burgh of Hamilton (although the extensive settling area for disposing of the washings from the silt-recovery tank is within the County area), the County Clerk drew the attention of the Burgh Authorities to the pollution. Remedial measures were taken to remove cause for complaint. The Park Burn at the point at which pollution occurred divides the Burgh from Blantyre Parish.

Priory Colliery, Blantyre.—Complaint having been made as to pollution of the River Clyde by discharges from this colliery, inspections were made on 30th May and 6th June, as a result of which it was found that there was ground for complaint due to surface drainage (*i.e.*, leakage from the washer) gaining access to a drain which conveys pit water to the river. Formerly such surface drainage and wagon drippings were dealt with in suitable settling ponds. The manager, on being informed of what was occurring, expressed regret, and took steps to have the pollution complained of stopped.

LEAD WASHER.—The County Medical Officer inspected the lead washer at Leadhills on 23rd March, when pollution of the Glengonnar Water was occurring, due to the settling ponds being silted up. Samples taken, on analysis, contained the following amounts of suspended solids, in parts per 100,000, *viz.* :—(1) effluent as entering settling ponds—(a) 1,348·4; (b) 752·4; effluent as leaving settling ponds, 383·4; Glengonnar Water immediately below the outfall, 263·0; and the Glengonnar Water at Townfoot, 201·0. The Manager of the Leadhills Company was written to, pointing out the very unsatisfactory nature of the effluent, and in reply a communication was received, stating that work for improving the settling ponds was being carried out.

AMMONIA WORKS.—The number of inspections made during the year was 43. Pollutions were recorded as occurring at Cambuslang Gas Works and Clyde Iron Works. With regard to the latter source of pollution, further reference is made to it under the heading “Streams” (page 59).

MANUFACTORIES.—The number of inspections made during the year was 72, nearly all of which were at Caldercruix and Moffat Paper Mills.

Caldercruix Paper Mills.—The following figures show the amounts of suspended solids in parts per 100,000 contained in the samples taken at these mills during the year. The standard for a paper mill effluent recommended by the Royal Commission on Sewage Disposal is 6 parts per 100,000:—

Date of Sampling.	Upper Outfall.	Lower Outfall.
18th January,	43·0	13·0
27th „	30·0	20·0
16th February,	13·0	23·0
24th „	69·0	37·0
2nd March,	12·0	20·0
19th „	30·0	7·5
26th „	6·2	5·2
3rd April,	24·6	—
12th „	45·2	26·6
19th „	15·6	46·2
27th „	42·0	43·2
3rd May,	8·8	16·3
11th „	6·6	18·8
17th „	10·0	12·6
25th „	8·4	15·2
5th June,	8·4	9·4
28th „	7·2	39·4
6th July,	21·4	18·0
24th „	31·5	16·4
1st August,	14·4	—
17th „	18·4	19·4
31st „	39·6	17·6
6th September,	33·0	71·2
14th „	53·4	18·4
28th „	13·0	12·0

Date of Sampling.					Upper Outfall.	Lower Outfall.
3rd October,	...	...	...	...	26.2	—
19th	„	...	...	...	13.8	21.6
24th	„	...	...	...	—	9.4
2nd November,	...	...	...	...	23.4	16.6
8th	„	...	...	...	8.6	47.0
13th	„	...	...	...	16.2	5.2
26th	„	...	...	...	4.3	5.2
26th	„	...	...	...	—	576.4*
30th	„	...	...	...	16.0	37.0
7th December,	...	...	...	...	27.4	13.6
14th	„	...	...	...	18.4	13.8
20th	„	...	...	...	—	10.0
27th	„	...	...	...	6.5	—

*From overflow on outfall channel.

The above figures on the whole cannot be considered as satisfactory, although the difficulties in producing an effluent reasonably low in suspended solids are fully realised. It is believed that the settling ponds are being regularly cleaned out and the sludge disposed of in the settling areas. At an inspection made on 24th July, however, there was direct pollution of the North Calder Water, due to the rag-washings effluent (which contained 43.2 parts per 100,000 of suspended solids) not being taken into the settling ponds, owing to the defective condition of the wooden channel conveying this effluent to the ponds. This defect was subsequently remedied. It was also noted about the same time that the large sludge settling area, which was brought into use after partial cleaning in the beginning of May, was rapidly filling up, and that the smaller area was full of sludge. On 26th November very serious pollution was detected, due to the effluent from the mills, as well as the more or less solid contents of a settling pond which was being cleaned out and into which the whole of the effluent was being run, being diverted past the pump-house sump and discharged to the North Calder Water by an overflow on the outfall channel. This overflow was previously complained of and was pointed out to the sub-committee which visited the mills in May of the preceding year. The manager would not admit, however, that it allowed other than supernatant liquid to be run off. The effluent as discharging to the North Calder Water contained 576.4 parts per 100,000 of suspended solids. The opinion previously expressed that serious pollution occurred, or was liable to occur, by

this means was thus verified, and a complaint was made through the County Clerk. In reply to a communication sent by him the owners expressed regret for the occurrence of the wilful pollution disclosed, the action of the workman concerned being against their express instructions, and also stated that the overflow referred to had now been built up.

Moffat Paper Mills.—The following figures show the amounts of suspended solids, in parts per 100,000, in the samples taken at these mills during the year:—

Date of Sampling.					Suspended Solids.
2nd February,	...	...	...	...	23·0 and 28·4
24th „	...	...	...	...	25·0
2nd March,	...	...	...	...	47·0
26th „	...	...	...	...	16·5
12th April,	...	...	...	...	165·6
19th „	...	...	...	...	11·0
27th „	...	...	...	...	11·0
3rd May,	...	...	...	...	11·6
11th „	...	...	...	...	7·0
25th „	...	...	...	...	20·0
5th June,	...	...	...	...	22·4
14th „	...	...	...	...	74·6
6th July,	...	...	...	...	12·5 and 9·6
1st August,	...	...	...	...	55·8
31st „	...	...	...	...	36·0
6th September,	...	...	...	...	22·4
14th „	...	...	...	...	3·4
28th „	...	...	...	...	29·6
3rd October,	...	...	...	...	7·6
19th „	...	...	...	...	23·0
2nd November,	...	...	...	...	10·6
8th „	...	...	...	...	15·4
13th „	...	...	...	...	3·3
30th „	...	...	...	...	7·0
7th December,	...	...	...	...	8·6
14th „	...	...	...	...	6·5
20th „	...	...	...	...	7·4
27th „	...	...	...	...	6·3

With regard to the preventive measures at these mills, the results of inspections showed that the settling ponds were not being cleaned

out as often as necessary to produce a uniformly satisfactory effluent. A sample taken in April gave the high figure of 165·6 parts per 100,000 of suspended solids. It might also be noted that there was a temporary recurrence, noted on 24th February, of direct pollution of the North Calder Water, due to a discharge from the carrier which conveys the crude effluent from the mills to the settling ponds.

Solid Matter Pollution.

Infringement of Section 2 of the Rivers Pollution Prevention Act, 1876, occurred at Glencleland Colliery and Westwood Colliery, the South Calder Water in each instance being the stream affected. Remedial measures were adopted on complaint being made. Inspections were also made as to a complaint of solid matter pollution of the Rotten Calder, which occurred in connection with excavation work at the new Priory Bridge. The County Medical Officer inspected the stream on 9th March, and steps were taken to remove cause for complaint.

Sewage Pollution and Sewage Disposal.

In connection with sewage pollutions, 421 inspections were made of sewage purification works and outfalls, and 116 samples taken.

Unsatisfactory conditions, resulting in pollution, were detected at the undernoted sewage purification works:—

Purification Works.	Dates of Inspection.	Notes of Inspections.
Bishopbriggs.	11th January,	Discharge of crude sewage by storm overflow, and effluent from works otherwise unsatisfactory.
	1st February,	
	8th „	
	14th „	
	29th March,	
	29th October,	Discharge of crude sewage by storm overflow.
	16th November,	
	12th December,	
Carbarns (Wishaw).	2nd March, 5	Crude sewage discharging direct to River Clyde.
	27th March,	
	23rd October,	

Purification Works.	Dates of Inspection.	Notes of Inspections.
Chryston and Muirhead,	{ 27th September, 2nd October, 1st November, }	Large number of filter trays inoperative.
Cleland and Omoa,	7th June,	Effluent unsatisfactory. Filters not in operation.
Harthill and Eastfield (4 outfalls),	{ 20th December, 21st ,, }	Effluents all unsatisfactory and How Burn polluted.
Muirburn (Coalburn),	29th May,	Effluent polluting.
Westthorn, - Tollcross.	During whole of year.	Part of crude sewage discharging direct to River Clyde.

Further reference is made to these pollutions in the following paragraphs :—

SPECIAL DRAINAGE DISTRICTS.—Barony.—There is nothing new to report with regard to Westthorn Sewage Purification Works, which are still a source of crude sewage pollution of the River Clyde. Samples of the treated effluent are regularly taken for analysis.

Bishopbriggs and Auchinairn.—At inspections made at Bishopbriggs Sewage Purification Works at various times during the year pollution by crude sewage was observed as formerly. The effluent has also, as noted in the preceding year, been found to be unsatisfactory on account of sludge contamination. On 29th March, however, the effluent appeared to be quite good, although there was a heavy crude sewage discharge. With reference to the Engineers' recommendation to instal a motor so as to run the agitators at half-speed during the night and early morning with a view to effecting an improvement in the effluent, this plant has now been provided, and was brought into operation about the end of March. It might also be noted that as a result of polluting discharges from these works the Bishopbriggs Burn was seriously polluted, and at the dam at Cadder Mill it is said to have resembled an open septic tank. Several effluent and stream samples were taken for analysis. The crude sewage pollution was the usual excess flow over the amount which the works are able to deal with. This difficulty had not been got over at the close of the year.

Chryston and Muirhead.—Under the heading "Streams" (page 55), reference is made to the unsatisfactory condition of the filter

trays at these works. Some improvement has been effected, and further improvement is contemplated.

Cleland and Omoa.—At an inspection of these works, made in connection with a complaint of sewage pollution of the Tillan Burn (see also “Streams”), it was noted that the effluent was a source of pollution. The tank only is in operation, as, owing to mineral subsidence of the ground, the filters have been in an unsatisfactory condition for a number of years.

Coalburn.—It was reported on 29th May that the effluent from Muirburn Sewage Purification Works was of a polluting nature. Samples of the Muir Burn above and below the outfall were taken for analysis.

With regard to other areas, for the recently formed Special Drainage Districts of (a) Crossford and Hazelbank, and (b) Kirkfieldbank, drainage and sewage disposal works have been carried out. The disposal works consist of septic tanks, there being two for Crossford, and two for Kirkfieldbank. One for Hazelbank is also being arranged for. The effluents from these tanks all discharge to the River Clyde, with the exception of one at Crossford, which discharges to the River Nethan. Drainage and sewage disposal works have also been provided for Symington Special Drainage District. This district was formed in 1914, but drainage works were not proceeded with until 1925. The sewage is conveyed to a septic tank with an outfall to the River Clyde. The Special Drainage Districts in the *Upper Ward* now number 15.

There are now 26 Special Drainage Districts in the *Middle Ward*.

Glenboig.—A Special Drainage District was formed at Glenboig in 1927, and it has been arranged to carry out drainage and sewage disposal works. The sewage disposal works are to be on the activated-sludge principle of purification and have been designed by the Middle Ward District Engineer. In connection with the proposed sewage purification works, a sample of the Bothlin Burn at Rose Cottage was taken for analysis on 16th May, in considering the value of the stream as a diluent for sewage effluents. The results of analysis, which showed that the stream in the condition it was when the sample was taken was of little value as such, were forwarded to the Middle Ward District Engineer, at whose request the sample was taken. Reference is also made to complaints of pollution of the Glenboig or Bothlin Burn under the heading “Streams” (page 57).

Overtown.—A special drainage district was formed for Overtown on 10th May. Complete sewage purification works for the extensive housing scheme and other properties were provided and brought into operation in March, 1927. Complaint having been made regarding pollution of the small stream into which the effluent from the works discharges, samples of the stream above and below the works' outfall were taken on 28th February. The results of analyses, which were reported to the District Engineer, indicated that the outfall stream below the outfall was badly polluted.

Stonehouse.—On 20th March a six-hours' average sampling of the effluents was carried out at Stonehouse Sewage Purification Works, which were brought into operation in September, 1927. Stream samples were also taken. The results of analysis, which were considered satisfactory, were forwarded to the District Engineer.

Extension of Special Drainage District.—Inspections and inquiries were made in connection with objections raised in relation to the inclusion of certain properties, situated near the sewage purification works, within the area of the proposed extension of the district.

The number of Special Drainage Districts in the *Lower Ward* remains as formerly.

Rutherglen Drainage—Joint Intercepting Sewer.—Complaint as to pollution of the River Clyde from this sewer is referred to under the heading "Streams" (page 59).

Populous Places, &c., Outwith Special Drainage Districts.

Ferniegair.—Sewage pollution of the Ross outfall ditch and alleged nuisance conditions arising therefrom and affecting Ross House having been again complained of, a communication was addressed to the District Clerk inquiring whether, as a temporary expedient for the alleviation of this undoubted nuisance, the ditch in the vicinity of Ross House could not be cleaned out under the arrangements come to some time ago whereby the District Sanitary Inspector was empowered to take such measures, where necessary. It was agreed to do this.

Harthill and Eastfield.—In connection with a complaint of pollution of the How Burn, an inspection was made by the County Medical Officer, on 21st December, when pollution was found occurring

from the four outfalls from this district which discharge to that stream. There are some means of purification for these outfalls, but they are all unsatisfactory. A communication on the complaint was forwarded to the District Clerk. The District Committee have had under consideration the question of the proper disposal of the sewage from this now populous area for some considerable time.

Ryeland Creamery.—In previous years serious pollution of the Hall Burn, due to discharges of whey from this creamery, was complained of, as a result of which cheese-making was discontinued in October, 1926. Pollution, to a much less extent, however, still occurs, due to there being no means for dealing with the ordinary drainage of the creamery and dwelling-houses. Samples of the outfall ditch and Hall Burn were taken for analysis on 30th April.

BURGHs.—*Airdrie.*—The construction of sewage purification works for the Burgh of Airdrie, commenced on 16th November, 1926, was not completed at the close of the year.

Coatbridge.—Intimation was made that the Town Council were to proceed with the construction of sewage disposal works on the activated-sludge (Ames Crosta) method of purification at the site at the Luggie Glen acquired for this purpose. In this connection the Burgh Authorities inquired as to the present and ultimate quantity of sewage from the County area which might require to be dealt with at these works, and it was agreed to inform the Town Council that provision for a population of 500 would be sufficient, the prospect of feuing in the area which could be drained to the works being very indefinite.

Motherwell and Wishaw.—In view of the continuance of serious pollution of the River Clyde at Carbarns, as to which a further complaint was received, a report was transmitted on 30th March to the County Clerk, who again communicated with the Burgh Authorities. In reply a letter was received from the Town Clerk, with which he forwarded an excerpt from the Sewage Works' Manager's observations in the matter. The excerpt was as follows :—

“ It is the case, as observed by the County Medical Officer, that the sewage from the Wishaw portion of the Burgh is being discharged untreated to the River Clyde. I have been gauging the flow since July last. This has necessitated sewage discharging in the crude state into the river. We did not find it possible to measure the flow and

at the same time continue treatment, and you will appreciate that it is absolutely necessary to get accurate data for the design of the works.

“I am, however, proposing irrigating the sewage as far as I possibly can, but further checks of the flow in relation to the water consumption will be necessary.”

During the summer it was found that the sewage was being irrigated, and in reply to a further inquiry from the County Clerk as to when gauging of the sewage flow was likely to be resumed, information was conveyed on 13th August to the effect that it was the intention to postpone this until the very last moment, and also that the preliminary plans in connection with the scheme of sewage purification were being pushed forward, but that considering the amount of work involved and the data necessary it would be three or four months before the burgh surveyor could report definite progress.

Streams.

In connection with trade and sewage pollutions, 2,420 inspections were made, and 1,258 samples taken. The samples, as in previous years, included special weekly samples of the River Clyde and certain of its tributaries.

The following complaints of alleged pollution of streams were investigated and reported on :—

Bothlin Burn.—A letter, dated 28th June, was received from the Medical Officer of Health for Dunbartonshire, referring to complaints as to pollution which had been made to the Scottish Board of Agriculture and Scottish Board of Health by a farmer whose lands adjoin the lower reaches of this stream. In this communication, which was sent for information, reference was made to possible sources of pollution of the stream in the Lanarkshire area, notably Auchengeich Colliery. The letter also referred to alleged pollution of the Luggie Water from Bedlay Colliery. A communication, dated 14th September, from the Board of Health was also received by the County Clerk, containing an excerpt from a report by the Medical Officer of Health for Dunbartonshire on the farmer's complaint of alleged pollution of the Bothlin Burn in which it is stated :—

“On making inquiry as to where the pollution from Lanarkshire can come from, I was informed that the effluent from Auchengeich Colliery drains into the Bothlin, as well as the sewage from Chryston and possibly Stepps.”

With regard to Auchengeich Colliery and by-products plant, several inspections were made, when certain of the preventive measures for dealing with coal-dross washings were found to be unsatisfactory. There was also cause for complaint of oil pollution from the by-products plant, and, further, there was evidence in the Bothlin Burn of very serious coal-dross washings pollution. A special inspection was also made by the County Medical Officer, on 27th September, when the matter of improving the defective measures for dealing with the coal-dross washings effluent and oily discharges was gone into, and a promise obtained from the manager that effective steps would be taken to prevent pollution in future.

With regard to Chryston Sewage Purification Works, alleged to be a source of pollution of the Bothlin Burn, the County Medical Officer also inspected these works on 27th September. It was then found that the distribution of the tank effluent over the filter was unsatisfactory, a very large proportion of the distributing trays being inoperative, and the filter effluent unsatisfactory. A few days later, six-hourly average samples of crude sewage and effluents were taken for analysis, as well as samples of the Bothlin Burn above and 50 yards below the works' outfall and also from Auchengeich Colliery. The Chemist reported on the results of analyses as follows:—

“ These results show that the Bothlin Burn, below the outfalls from Chryston Sewage Purification Works and Auchengeich Colliery, is in a grossly polluted condition.

“ The stream above is ‘ clean,’ well aerated, and quite suitable for cattle-watering purposes.

“ With regard to the effluents, it is unfortunate that samples of the burn cannot be taken, so that the relative effect on the stream could be determined, and there is some difficulty in stating responsibility.

“ The effluent from the sewage purification works is unsatisfactory, as it absorbs three times the limit of oxygen in five days, and contains nearly three times the amount of suspended solids.

“ The effluent from the colliery is also unsatisfactory, containing a large amount of oil and phenoloid substances, which are capable of absorbing very large quantities of oxygen, to the detriment of the stream.”

Reports of these special inspections, together with the results of analyses of the burn and sewage work effluents, were forwarded to the County Clerk.

Dippool and Mouse Waters.—The County Medical Officer, on 6th June, made inspections of the polluting mine-drainage discharge at Woolfords and of the Dippool Water there, as well as below Auchengray Station, and at its junction with the River Mouse. Several samples were taken for analysis. Extended reference was made to the serious pollution of these streams by iron mine-water discharges in the report for the preceding year.

Glenboig Burn.—A complaint was received by the Middle Ward District Clerk with regard to the unsatisfactory condition of this stream at Glenboig. The burn receives the sewage of Glenboig and part of Garnqueen, and, as is well known, is seriously sewage-polluted, in addition to being defiled by rubbish and also silted up as a result of sewage pollution and by fine sand-washings solids washed down from above Glenboig. Inquiries were made into the complaint, and reports submitted, the District Engineer also having the matter under consideration. As a result of these inquiries, it was arranged that the burn should be cleaned out below the Main Street of Glenboig by the Middle Ward Sanitary Department, and beyond that upstream to Glenboig Station by the Glenboig Union Fireclay Company, who were the complainers. With regard to the pollution and silting of the stream above Glenboig Station, well away from the village, a report was forwarded to the County Clerk, who complained to the owners of Gartverrie Quarry, where sand-washing operations are carried on, and subsequently a meeting between the Rivers Inspector and one of the owners of the quarry was held, when the question of cleaning out the burn in the portion between the quarry and the station was discussed, as was also the question of the prevention of further pollution. While admitting pollution, the representative of the Quarry Company could not agree to clean out the burn, as had been suggested, but explained that small portions of the stream on his Company's ground and below their settling ponds had just recently been cleaned out, and he undertook that in future no further pollution would occur. As there is ample settling-pond accommodation at the quarry for dealing with the sand-washings, there should be no difficulty in producing an effluent which would not give rise to complaint, although it was clear that the preventive measures in the past had not been made proper use of. This arrangement appeared to meet the case satisfactorily, so far as the upper portion of the burn is concerned, and a report of the meeting was forwarded to the County

Clerk. The Glenboig Company at once carried out their part of the agreement to clean out a portion of the burn, the Sanitary Department also carrying out their portion of the work.

It might also be recorded, as having a bearing on the matter, that a complaint was received by the Lower Ward District Clerk as to sewage pollution and silting of the same stream on Garnqueen Dairy Farm, over a stretch of 200 yards or so south of the Monkland and Kirkintilloch railway line. The farmer concerned, who has undoubted cause for complaint, desired that the burn should be cleaned out, and straightened there also. This question, as affecting Garnqueen Farm, was under consideration some years ago.

Jock's Burn, Carluke.—A complaint, dated 17th August, was received from the Secretary of Carluke Golf Club, alleging sewage pollution of this stream and a tributary ditch, and also complaining of nuisance conditions arising from the sewage irrigation field or fields in the vicinity of the golf course and clubhouse. An inspection was made on 22nd August by the Rivers Inspector, when certain stream samples were taken, and again on 20th September by the County Medical Officer and District Sanitary Inspector. At these inspections the opinion was formed that, while no cause for complaint then existed, there was liability to intermittent sewage pollution of Jock's Burn and the ditch referred to, and that the distribution of the sewage tank effluent over the fields was very unsatisfactory. It was also considered that additional assistance was required if the scheme of irrigation were to receive proper attention. A report was forwarded to the County Clerk, who communicated with the Upper Ward Authorities in the matter. The local sub-committee, after having fully considered this report on 23rd October, agreed, with a view to improving the condition of the sewage fields and burn, to effect the following improvements, viz. :—

- (1) To pipe the open ditch where it passes in front of the clubhouse;
- (2) To have the distribution channels in all the fields put into thorough order, as soon as the weather is suitable;
- (3) To lime half of the field in which the sewage tank is situated, in order to ascertain how far this will remove sourness and improve filtration;
- (4) To employ an extra man (full time), who will devote half of his day to distributing the sewage over the fields.

Mollin Burn at Mollinsburn.—Reference is made to complaints of pollution of this stream, a tributary of the Luggie Water, from Bedlay Colliery, at page 34.

River Clyde.—Complaints were made in March by Glasgow Corporation alleging pollution of the River Clyde in the vicinity of Eastfield from various sources, and from Clyde Iron Works. The sources of alleged pollution in the vicinity of Eastfield were (1) the Rutherglen joint-intercepting sewer; (2) a polluting discharge running down the face of the river bank, and said to be coming from Clyde Paper Mills; (3) a pipe discharging from Clyde Paper Mills to the River; and (4) Clydebridge Steel Works. Inspections were made of all the alleged sources of pollution, and samples taken for analysis. With regard to the intercepting sewer, pollution was found to be occurring as alleged, due to a very heavy flow of crude sewage to the river. This is due to surcharging of the sewer, and has been the subject of complaint and report on many occasions. The second-mentioned pollution was of a temporary nature, caused by pumping to the river liquid which had accumulated in excavations made at the paper mills in the course of extensive alterations and additions. This liquid was dark brown in colour and frothed freely. The third pollution appeared to be a discharge of paper-mill effluent which was not being taken into the intercepting sewer, as the paper-mill drain was defective. This was remedied. With regard to Clydebridge Steel Works, the effluent complained of was the usual effluent from the works, which is liable to be of an oily nature. The complaint as to Clyde Iron Works alleged pollution of the river by tar and oil. Inspections were also made at these works, when pollution was found to be occurring, due to spent ammoniacal liquor and oily discharges.

Reports on all these pollutions were transmitted to the County Clerk, and in doing so, attention was drawn to the fact that officials of the Corporation, in addition to making inspections of sources of pollution within the County area, had written complaining to the owners of certain of the works concerned. The reports were submitted to a meeting of the County Public Health Committee, held on 4th April, when, in reference to the pollution from Clyde Iron Works, the Clerk was instructed to communicate with the owners, giving them a period of three months within which to remove cause for complaint. In making this decision the Committee were reminded

that the County Council had already obtained an interdict in Court against the firm for causing pollution of the River Clyde. In connection with the action of Glasgow Corporation, whose officials had visited Clyde Iron Works and interviewed representatives of the proprietors, the Town-Clerk also having written to them on the subject of remedial measures, it was agreed that the County Clerk should write to the Town-Clerk of Glasgow pointing out that while the County Council welcomed the co-operation of the City in preventing pollution, it was liable to cause difficulties when Corporation officials in any way dealt with cases occurring within the County.

A further complaint from the Corporation, dated 6th July, was received by the County Clerk, stating that, at a meeting of the Sewage Sub-Committee on Negotiations with Authorities outwith the City, held on 19th June, there had been submitted a report by the General Manager of the Sewage Department, pointing out several sources of pollution of the River Clyde, among which were the following :—

- (1) An 18-inch sewer, 300 yards east of Dalnarnock Bridge, from which there was a bad discharge of oil and sewage;
- (2) An overflow from the Rutherglen sewer west of Davidson's Fish Offal Works, from which there was a sewage discharge;
- (3) Davidson's Fish Offal Works' discharge pipe to river, broken on bank and is causing a very offensive odour;
- (4) Joint sewer at east end of Clyde Paper Works, from which there was a full discharge of bad sewage, which had been going on for months;
- (5) Intermittent discharges of oil from the gas-producer plant at Messrs. David Colville & Sons' Clyde Bridge Steel Works;
- (6) Discharge from the overflow from Shettleston and Tollcross sewer.

Inspections were made of the discharges referred to on 12th and 19th July, on the latter date by the County Medical Officer, when several samples were taken. A further inspection was made on 21st August, when a series of effluent and stream samples was taken. The discharges mentioned in the Corporation's complaint are all

well-known and have been the subject of serious consideration with a view to the adoption of remedial measures for many years. The main sources of pollution are the sewage discharges to the River Clyde, due to the defective condition and probable inadequacy of the Rutherglen joint-intercepting sewer and the serious continuous pollution by crude sewage from Westhorn Sewage Purification Works. These are covered by items (2), (4), and (6) in the Corporation's complaint; items (1), (3), and (5) are of quite minor importance. A report on the complaint was forwarded to the County Clerk on 10th September, which was submitted to a meeting of the County Public Health Committee on 12th September, when instructions were given that the Lower Ward Authorities concerned with the sources of pollution complained of should be communicated with and their attention directed to the conditions referred to.

Complaint of pollution of the River Clyde at Blantyre by coal-dross washings is referred to under "Priory Colliery" (page 46).

Shotts Burn.—A communication, dated 27th January, was received by the Middle Ward District Clerk from the Scottish Board of Health as to a complaint made by the owners of Longacre Farm, Salsburgh, with reference to alleged continued pollution of the Shotts Burn by sewage from the village of Salsburgh. There had been correspondence in 1924-25 on this subject. An inspection was made on 1st February, when samples were taken for analysis, the results of which showed that no serious pollution was then taking place, and in transmitting these to the District Clerk it was suggested that before making any observations on the complaint further samples would be taken during dry weather. This was accordingly done on 22nd February, the results of analyses of the samples indicating quite clearly that the stream was in a polluted condition a short distance below Salsburgh Sewage Purification Works, and unsuitable as a water supply for cattle. This condition was not due to the sewage works' effluent, but to other discharges, and to the fact that all the clean water available for dilution of these discharges and of the effluent from the sewage purification works is taken from the stream into the Airdrie and Coatbridge Water Board's reservoir. The results of analyses of the second series of samples, together with the Chemist's report thereon, were forwarded to the District Clerk.

On 4th May an inspection was made on behalf of the Board, which was attended by the County Medical Officer and other officials.

Further samples were also taken on 8th May. The Board, having considered the complaint in all its aspects, communicated with the District Clerk, on 25th June, in the following terms:—

“With reference to your letter, dated 23rd ultimo, regarding the complaint by Mr. William Gibson as to the alleged pollution of the Shotts Burn by sewage from Salsburgh village, I enclose herewith, for the information of your local authority, copy of a letter that the Board have to-day addressed to the complainer.

“I am to add, however, that the Board trust that the local authority will, as soon as it may be found practicable, take steps to complete the sewerage for the village of Salsburgh, and also to provide further purification for the sewage so as to produce a more satisfactory effluent.

“I shall be glad to learn in due course the result of the further consideration of this matter by the local authority.”

The letter sent to Mr. William Gibson was as follows:—

“Adverting to your call at this office on 17th ultimo, and to previous calls and correspondence regarding the alleged pollution of the Shotts Burn by drainage from Salsburgh village, I have to inform you that the Board have had under consideration a report by one of their Medical Officers and one of their Engineering Inspectors on the whole circumstances. From their report it does not appear that the conditions complained of constitute a ‘nuisance’ within the meaning of the Public Health (Scotland) Act, 1897. As regards question of the pollution of the burn other than from the public health aspect, I have to point out that the Board have no power to take proceedings under the Rivers Pollution Prevention Acts. Proceedings in respect of sewage pollutions may, however, be taken by ‘any person aggrieved’ thereby.

“The Board are further informed that an offer to fence the burn where it passes through Craighead Farm, and to furnish a trough for water for your cattle was made (subject to confirmation by the local authority), but that you refused to discuss such an arrangement. It appears to the Board that, if this offer were made and accepted, all reasonable grounds for your complaints with regard to the provision of drinking water for your cattle would be removed.

“In the circumstances, the Board do not propose to take further action on your complaint.”

Tillan Burn.—Inquiries were made on 7th June into a complaint received from a farmer alleging sewage pollution of the Tillan Burn, which is a source of water supply for the cattle on Whitcraighead Farm, Cleland, and it was alleged that there had been illness in the stock due to drinking the water of the stream. The stream receives

sewage pollution, notably from the Parkside, &c., area, and also from Cleland and Omoa Sewage Purification Works. At the point complained of, however, the stream was reported to be comparatively clear, and the results of analysis of a sample taken indicated that it was a clean stream suitable for cattle-watering purposes.

Whinney Burn, Dalziel Parish.—This stream, pollution of which has been complained of in previous years, was again observed on 3rd February to be polluted by irony pit water from Shields Colliery, but was subsequently found to be much improved.

Whitlaw Burn, Cambuslang.—Inspections were made and samples taken in connection with a complaint of alleged nuisance arising from pollution of this stream at Duke's Road, Cambuslang.

Food and Drugs.

Senior Inspector and Sampling Officer, - CHAS. MACARA.

The work under the Sale of Food and Drugs Acts and relative Regulations and Orders is carried out by three inspectors. The following table shows the yearly average number of inspections, administrative samples taken and analysed, with the percentage found deficient, the yearly average samples taken for special purposes for the five quinquennial periods from 1900-1924, and the annual figures for the years 1925, 1926, 1927, and 1928 :—

Years.	Inspections.	Administrative Samples.			Special Samples.
		Procured.	Analysed.	Percentage Deficient.	
1900-04, -	616	338	316	11·27	—
1905-09, -	828	487	480	12·64	—
1910-14, -	789	574	558	12·16	573
1915-19, -	373	340	326	12·96	14
1920-24, -	804	653	647	8·11	107
1925, -	1,506	1,383	1,355	6·49	42
1926, -	1,385	1,339	1,325	6·12	129
1927, -	2,405	1,884	1,876	16·04*	174
1928, -	2,689	2,040	2,023	8·15	713

* The increase in the percentage deficiencies is accounted for by the additional contraventions under the Public Health (Preservatives &c., in Food) Regulations, which came into force on 1st Jan., 1927.

The following tabular statement shows the work carried out in the three districts of the County, and the Burgh of Biggar, and the manner in which the samples were procured, &c. :—

District.	Inspections made.	Samples procured.				Analysed.	
		Formal.	Informal.	Received Privately.	Total.	Public Analyst.	County Chemist.
Upper Ward, -	258	74	152	1	227	76	150
Middle Ward, -	2,171	257	1,329	8	1,594	261	1,317
Lower Ward, -	239	63	134	—	197	63	134
Burgh of Biggar, -	21	10	12	—	22	10	12
Total, -	2,689	404	1,627	9	2,040	410	1,613

17 samples were not analysed.

The following table shows the nature and number of samples purchased and received, the number analysed, and the number found deficient :—

Article.	Procured.	Analysed.	Deficient and Non-genuine.
Sweet Milk, - - - -	1,304	1,296	66
Skimmed Milk, - - - -	12	12	1
Cream, - - - -	12	12	—
Cream Substitute, - - - -	1	—	—
Condensed Milk, - - - -	3	3	—
Ice Cream, - - - -	1	1	—
Butter, - - - -	29	27	1
Cheese, - - - -	3	3	—
Margarine, - - - -	8	7	—
Whisky, Rum, and Gin, - - - -	58	58	7
Beer, - - - -	19	19	—
Non-alcoholic Cordials, - - - -	5	5	—
Invalid Wine, - - - -	2	2	—
Mince and Mince Pie, - - - -	273	273	77
Sausage Meat, - - - -	9	9	5
Sausages, - - - -	40	40	4
Meat Roll, - - - -	3	3	1
Black Pudding, - - - -	28	28	2
Bacon and Ham, - - - -	12	12	—
Lard, - - - -	6	5	1
Dripping, - - - -	1	1	—
Barley, - - - -	77	77	—
Pease Meal, - - - -	3	3	—
Corn Flour, - - - -	2	2	—
Ground Rice, - - - -	1	1	—
Custard, - - - -	3	3	—
Peas, - - - -	2	2	—
Cream Cakes, Madeira Cake, &c.,	21	21	—
Tomatoes (tinned), - - - -	3	3	—
Red Cabbage, - - - -	1	1	—
Seedless Raisins, - - - -	1	1	—
Ground Almonds, - - - -	1	1	—
Apples, - - - -	2	2	—
Dried Fruits, - - - -	8	8	—
Jam, - - - -	5	4	—
Forward, -	1,959	1,945	165

Article.	Forward,	Procured.	Analysed.	Deficient and Non-genuine.
		1,959	1,945	165
Calf Foot Jelly, - - -	-	1	1	—
Tea, - - - -	-	1	1	—
Coffee and Coffee with Chicory, -	-	5	5	—
Sugar, - - - -	-	38	38	—
Clear Mints, - - - -	-	1	1	—
Syrup, - - - -	-	2	2	—
Vinegar, - - - -	-	2	2	—
Sauce, - - - -	-	15	15	—
Egg Substitute, - - - -	-	1	1	—
Liquid Eggs, - - - -	-	1	1	—
Mustard - - - -	-	1	1	—
Vegetable Extract, - - - -	-	1	1	—
Vitmar Cream, - - - -	-	1	—	—
Cascara Sagrada, - - - -	-	1	—	—
Syrup of Figs, - - - -	-	1	1	—
Tincture of Iodine, - - - -	-	1	1	—
Tincture of Benzoin, - - - -	-	1	1	—
Liniment of Turpentine, - - - -	-	1	1	—
Seidlitz Powder, - - - -	-	1	1	—
Proteid Food, - - - -	-	1	1	—
Cod Liver Oil Tablets, - - - -	-	1	—	—
Extract of Malt, - - - -	-	1	1	—
		2,038	2,021	165

Thirty-eight of the deficient samples were taken formally and 127 informally. In regard to 37 of the formal non-genuine samples, informations were lodged with the County Clerk. The vendors from whom the informal deficient samples were procured were kept under supervision and formal samples taken.

The following table shows the formal non-genuine samples dealt with during the year, and the action taken in each case:—

Reg. No.	Article	Date Procured	Action Taken
39	Sweet Milk,	22nd Jan., 1928,	Pled guilty at Hamilton, 24th February, 1928. Fined £3.
145	Sweet Milk,	2nd Feb., „	Pled guilty at Hamilton, 16th March, 1928. Fined £3.
161	Mince,	2nd Feb., „	Pled guilty at Airdrie, 13th March, 1928. Fined £3.
187	Sweet Milk,	6th Feb., „	Owing to smallness of deficiency no proceedings taken.

Reg. No.	Article	Date Procured	Action Taken
193	Mince,	6th Feb., „	Pled guilty at Hamilton, 16th March, 1928. Fined £2.
296	Mince,	23rd Feb., „	Pled guilty at Hamilton, 30th March, 1928. Fined £2 10s.
297	Mince,	23rd Feb., „	Pled guilty at Hamilton, 30th March, 1928. Fined £2.
302	Sweet Milk,	24th Feb., „	Pled guilty at Hamilton, 30th March, 1928. Fined £2.
305	Mince,	24th Feb., „	Pled guilty at Hamilton, 28th May, 1928. Fined £1.
316	Mince,	28th Feb., „	Pled guilty at Glasgow, 3rd April, 1928. Fined £3.
366	Mince,	9th March, „	Pled guilty at Glasgow, 10th April, 1928. Fined £2.
410	Sweet Milk,	20th March, „	Written caution sent by County Clerk.
436	Mince,	22nd March, „	Pled guilty at Glasgow, 21st April, 1928. Fined £1.
471	Mince,	27th March, „	Pled guilty at Hamilton, 11th May, 1928. Fined £2.
480	Sweet Milk	28th March, „	Pled guilty at Hamilton, 11th May, 1928. Fined £1.
676	Sweet Milk,	24th April, „	Pled guilty at Glasgow, 25th May, 1928. Fined £2.
783	Sweet Milk,	8th May, „	Written caution sent by County Clerk.
808	Sweet Milk,	11th May, „	Proof at Airdrie, 2nd November, 1928. Not guilty.
837	Sweet Milk,	15th May, „	Proof at Hamilton, 12th October, 1928. Not proven.
996	Sliced Sausages,	8th June, „	Proof at Glasgow, 5th September, 1928. Fined £2.
1,069	Beef Sausages,	22nd June, „	Pled guilty at Lanark, 20th July, 1928. Fined £1 10s.
1,106	Sliced Sausages,	3rd July, „	Written caution sent.
1,117	Sweet Milk,	5th July, „	Pled guilty at Lanark, 13th August, 1928. Fined £1 13s.
1,143	Sweet Milk	11th July, „	Samples taken on delivery were just on standard, therefore a written caution was sent.
1,212	Sliced Sausages,	31st July, „	Complaint withdrawn owing to technicality.
1,358	Lard,	21st Aug., „	Pled guilty at Airdrie, 2nd October, 1928. Fined £1.
1,376	Whisky,	23rd Aug., „	Pled guilty at Lanark, 9th October, 1928. Fined £10.
1,378	Whisky,	23rd Aug., „	Proof at Lanark, 11th November, 1928. Fined £10.
1,385 } 1,386 }	Sweet Milk,	24th Aug., „	Written caution sent.
1,389	Butter,	24th Aug., „	Written caution sent.
1,702	Sausage Meat,	4th Oct., „	Pled guilty at Glasgow, 16th November, 1928. Fined £2.
1,704	Sweet Milk,	5th Oct., „	Pled guilty at Hamilton, 21st December, 1928. Fined £3.

Reg. No.	Article	Date Procured	Action Taken
1,794	Sliced Sausages,	17th Oct., ,,	Pled guilty at Glasgow, 16th November, 1928. Fined £2.
1,833	Mince,	25th Oct., ,,	Pled guilty at Airdrie, 14th December, 1928. Fined £5.
1,844	Sausage Meat,	25th Oct., ,,	Pled guilty at Glasgow, 14th December, 1928. Fined £5.
1,918	Mince.	13th Oct., ,,	Pled guilty at Lanark, 9th October, 1928. Fined £10.

Milk :—1,296 samples of sweet milk were analysed, and 66 certified to be deficient. The following tables show the samples of sweet milk classified according to the percentages of milk fat and milk solids other than milk fat which they contained, and also according to the business of the vendors, viz., producer wholesalers, producer retailers, wholesalers and retailers:—

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK FAT.
PRESUMPTIVE STANDARD = 3 PER CENT.

Milk Fat Percentage.	NUMBER OF SAMPLES.				
	Producer- Wholesalers.	Producer- Retailers.	Wholesalers.	Retailers.	Total.
1·9	—	1	—	—	1
2 1	—	1	—	—	1
2·2	—	—	—	—	—
2·3	—	2	—	—	2
2·4	—	—	—	—	—
2·5	—	—	—	1	1
2·6	—	2	—	—	2
2·7	—	4	—	4	8
2·8	—	8	—	7	15
2·9	1	4	—	9	14
3 0	1	30	—	15	46
3·1	2	19	—	25	46
3·2	1	30	—	39	70
3·3	2	26	1	51	80
3·4	1	47	1	82	131
3·5	11	57	—	72	140
3·6	4	46	1	92	143
3·7	4	42	—	71	117
3·8	4	56	2	59	121
3·9	2	42	1	48	93
4·0	1	30	—	45	76
4·1	4	25	—	29	58
4·2	—	15	—	16	31
4·3	—	13	—	11	24
4·4	1	12	—	8	21
4·5	3	28	—	24	55
and over					
Total,	42	540	6	708	1,296

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK SOLIDS OTHER
THAN MILK FAT.

PRESUMPTIVE STANDARD = 8·5 PER CENT.

Non-fatty Solids Percentage.	NUMBER OF SAMPLES.				
	Producer Wholesalers.	Producer Retailers.	Wholesalers.	Retailers.	Total.
7·5-8·0	1	1	—	2	4
8·0-8·25	1	2	—	2	5
8·25-8·49	—	6	—	11	17
8·5	2	25	1	25	53
8·6	2	23	—	51	76
8·7	9	51	—	74	134
8·8	5	84	—	87	176
8·9	5	85	3	116	209
9·0	6	82	2	108	198
9·1	9	73	—	96	178
9·2	2	63	—	80	145
9·3	—	19	—	34	53
9·4	—	19	—	14	33
9·5	—	7	—	8	15
and over					
Total,	42	540	6	708	1,296

30 samples not included in the above classification were taken for special purposes, viz., 28 in an “appeal to the cows” of a vendor from whom a deficient sample of sweet milk had been procured, and 2 in connection with a request from a private owner to have the milk of two of his cows tested for quality and for tubercle bacilli. The “appeal to the cows” was made from 14 cows at the morning and evening milking. On analysis it was found that the milk yielded by the cows was well above the standard in every case, the average for the herd being as follows:—

	Milk Fat per cent.	Solids not Fat per cent.
Morning Milking, - - -	4·3	9·1
Evening Milking, - - -	4·1	8·9

With regard to the two samples from the 2 cows of a private herd, the average analysis was 4·1 per cent. of fat, and 8·6 per cent. of solids not fat, and on examination in the Bacteriological Laboratory the milk from both cows was found to be free from tubercle.

A special investigation and sampling was commenced in November, with a view to determining whether consignments of milk from 11 farmers in the Upper Ward, as delivered to Lesmahagow Creamery in cans of various sizes, were liable to contain milk under the presumptive standard as laid down by the Sale of Milk Regulations. The consignments of morning and previous evening milk are delivered to the Creamery in the morning, and consist of cans of a capacity varying from 2 to 12 gallons. Up to the end of the year 660 samples were taken, and analysed in the Chemical Laboratory. The sampling is to continue for one year, when it is hoped to issue a special report giving the results of the investigation.

An investigation is also being carried out as to the milk of newly-calved cows. Samples are being taken from 7 cows at Hartwood Home Farm during the lactation periods. Twenty-three samples were taken up to the end of the year. The results of the investigation will be included in the special report.

Milk of Special Quality :—In making investigations in connection with the granting of licences for the sale of graded milk under the Milk (Special Designations) Order (Scotland), 1923, 194 inspections were made during the year, and 246 samples were taken for examination in the County laboratories. As regards ordinary milk, 208 of the informal samples procured under the Food and Drugs Acts were examined in the Bacteriological Laboratory with a view to finding out the cleanliness or otherwise of the milk retailed within the County. As a result of this examination about 40 per cent. of the samples were found to be unsatisfactory. In connection with 23 of the unsatisfactory samples, intimation was given to the District Sanitary Inspector in whose area the vendors' premises were situated. He thereafter instructs a member of his staff to visit the premises during milking time and give general instructions as to the care that should be taken to ensure cleanliness of the milk supply. In connection with 106 of the samples, a pint of milk was passed through a filter pad in a "Minute" sediment tester in presence of the vendors. In 43 of the samples the filter pads were dirty. The dirty pads were shown to the vendors, who were verbally cautioned. Experience has shown that this method of drawing dairymen's attention to the visible dirt in their milk supply has a very salutary effect. Re-inspection and sampling at the vendors who have been cautioned almost invariably showed a great improvement.

Ever since the coming into force of the Milk (Special Designations) Order (Scotland), 1923, it has been the practice of certain large milk retailing firms to advertise by bill and lecture, &c., the advantages, from a health point of view, of pasteurised milk, and yet evade the responsibility of bringing the milk under the requirements of the Order. In this connection an unlabelled bottle of "pasteurised milk" was purchased from a retail lorry, with an advertisement on the back that "pasteurised milk" was on sale, although the vendors were not licensed to sell this grade of milk. An information was lodged with the District Clerk of the Middle Ward, with a view to legal action for a contravention of the Milk and Dairies (Amendment) Act, 1922, and successful proceedings followed.

Skimmed Milk.—12 samples of Skimmed Milk were procured during the year, and in four cases the analysis showed that it was actually Sweet Milk in composition that had been supplied. The cans from which these four samples were obtained were stated to contain skimmed milk although they were not labelled in accordance with the Milk and Dairies (Scotland) Order, 1925. The vendors were verbally cautioned to have the cans labelled "Skimmed Milk," as required by the Order.

MARGARINE CONTRAVENTIONS.

Two contraventions of the Margarine Act as regards improper labelling of the margarine, and one contravention as regards failure to label were detected. It was deemed sufficient to verbally caution the offenders.

MISCELLANEOUS ARTICLES.

Apples.—2 samples were procured and analysed for the presence of arsenic. They were found to be free.

Tinned Tomatoes.—5 samples were procured, and on analysis were found to contain tin in amounts ranging from .14 to 1.10 grains per lb. The tin had obviously been dissolved from the tin container, but the amount present did not warrant action being taken.

Drugs.—8 samples of drugs were procured. Eight of these were analysed and were found to conform to the B.P. standard. Two were not analysed, being procured for the description on the labels.

17 samples of prescribed drugs and appliances were procured in connection with a scheme of the National Health Insurance Committee for the testing of drugs and appliances supplied to insured persons under National Health Insurance.

PUBLIC HEALTH (CONDENSED MILK) AND (DRIED MILK) REGULATIONS (SCOTLAND), 1923.

Attention was given at all inspections to the requirements of the above regulations. Three samples of condensed milk were procured and analysed. No contraventions were detected.

SALE OF FOOD ORDER, 1921.

Eight contraventions of the above Order were detected. These consisted of three cases of labelling eggs as "fresh" or "new laid," without declaring that they were "imported," and five cases of failure to label imported meat as required by the Order. Verbal cautions were given in seven of these cases, but as regards the remaining case, an information was lodged with the County Clerk. The latter action was prompted by the receipt of a letter from the National Farmers' Union of Scotland dealing with the labelling of imported produce, stating that, at a meeting of their Central Executive Committee it was "reported that the Regulations governing the sale of these articles as defined in Part III of 'The Sale of Food Order, 1921,' were, in very many cases, not being observed, and . . . to ask if your Local Authority would be good enough to take steps to secure proper compliance with the Order."

The case in which the information was lodged was one where a piece of shoulder steak was exposed prominently on a shelf within a butcher's van. The steak bore two tickets, one inscribed "Finest Rump Steak," and the other the price "1s. 2d." In the course of the inspection of the van by the Inspectors, the man in charge admitted that the steak was imported meat. On being informed that imported meat required to be labelled with the word "imported" he professed ignorance of the terms of the Order, and stated that he had never been supplied by his employers with a ticket of this description. No sample of the meat was taken. There is no chemical test to distinguish between home and imported meat, and sampling would serve no useful purpose. The only test is the expert eye of a meat inspector. The

information was transmitted to the Procurator-Fiscal. After consideration of the information, the Fiscal deemed that, in the absence of a sample, proceedings could not be justified upon the evidence produced by the Inspector's information. A letter was sent to the County Clerk suggesting that all the documents relating to this case should be sent to the Department of Health for Scotland for their information and observations.

PUBLIC HEALTH (PRESERVATIVES, &C., IN FOOD) REGULATIONS
(SCOTLAND), 1925,

AND

SALE OF FOOD AND DRUGS ACT, 1927.

All the articles which are affected by the above regulations were analysed for the presence of preservatives. In procuring samples of mince, sausages, sausage meat, &c., the procedure adopted is to procure informal samples for examination in the chemical laboratory in the first instance, and follow up any non-genuine samples afterwards by the purchase of formal samples for analysis by the Public Analyst. As will be seen from the table of samples purchased and analysed, 77 of the samples of mince, 5 of sausages, 4 of sausage meat, 2 of black pudding, and one of meat roll were found to be non-genuine, in respect that they contained preservative prohibited by the regulations. One of the samples of sausage meat was certified to contain "410 parts of sulphur dioxide per million, and to consist of butcher meat minced with no starchy filler." According to the regulations, the only article which is allowed to contain preservative is as scheduled, viz., "Sausage meat, containing raw meat, cereals, and condiments." Sausage meat without starchy filler is not allowed to contain preservative. Therefore the article was really mince and should not have contained preservative at the time the sample was taken, viz., October. An information was lodged with the County Clerk regarding this case, and successful proceedings instituted. Many contraventions of failure to exhibit the notices required by the regulations regarding preservative in sausages and sausage meat were detected, mostly in connection with inspections of butchers' vans. Verbal cautions were given and the vendors kept under supervision.

Fertilisers and Feeding Stuffs Act.

The Fertilisers and Feeding Stuffs Act, 1926, came into operation on July, 1st, 1928. The relative regulations governing the methods of sampling and analysis, methods of marking parcels, and limits of variation were issued in June.

The general purpose of the Act, like that of the Act of 1906, which it repeals, is to provide civil remedies in case of misdescription of, and to prevent fraud in fertilisers and feeding stuffs. Its scope is defined by means of Schedules which may be extended or varied, whenever the need arises, by regulations. The procedure is much simplified, and civil proceedings and criminal proceedings are kept separate in the new Act in order to encourage farmers to exercise their civil rights without involving them in proceedings at Court of Law.

The sampling under the Act is carried out by the Food and Drugs Inspectors. 10 inspections were made, and 11 samples of fertilisers taken. 9 of the samples were taken formally at the request of a farmers' trading association, 1 at the request of a farmer, and 1 was taken informally. All the samples were certified by the Agricultural Analyst to conform to the warranties on the invoices with the exception of a sample of Ground Mineral Phosphate which was certified to be deficient in fineness. Copies of the Analyst's certificates were sent to the buyers and the sellers.

The following table shows the number of samples obtained and the number found deficient :—

Fertilisers.			Feeding Stuffs.		
Name.	Obtained.	Deficient.	Name.	Obtained.	Deficient.
Calcium Cyanamide,	1	—	NIL.		
Sulphate of Potash,	2	—			
Kainit, - - -	1	—			
Potash Salts, - -	1	—			
Bone Meal, - - -	1	—			
Basic Slag, - - -	1	—			
Sulphate of Ammonia,	1	—			
Grain and Grass					
Manure, - - -	1	—			
Ground Mineral Phos-					
phates, - - -	1	1			
Superphosphates, -	1	—			
Potato Manure, -	1	—			
Total,	12	1			

Shops Acts, 1912-1921.

The work under the above Acts has been carried out by the Food and Drugs Inspectors on the same lines as in previous years, with a view to assisting shopkeepers and their assistants to obtain the benefit of better working conditions conferred on them by the Statute. Legal proceedings against offenders are only instituted as a last resort where cautions have not been effective in putting a stop to infringement of the terms of the Statute. In the main, offenders are generally small shopkeepers and itinerant hawkers. Table D shows the number of inspections to localities, visits to shops and contraventions detected under the Act for the three wards of the County. There were 427 contraventions. These consisted of 2 cases of failure to close at the time fixed on weekly half-holidays and under Closing Orders; 6 cases of selling non-exempted goods; 415 failures to exhibit notices in terms of the Act; 2 failures to give assistants half-holidays; and 2 street trading on the half-holiday.

The following statutory notices were issued to shopkeepers:—

Shop assistants' weekly half-holiday, ...	213
Mixed shops for exempted goods, ...	59

The following paragraphs give further particulars regarding inspections made in connection with the administration of the Acts and the irregularities detected:—

Shops' Weekly Half-Holiday.—The weekly half-holiday Orders operative in the County area apply to (1) the Middle Ward; (2) the Parish of Carluke; (3) the Baillieston and District Butchers' Order; and (4) the Lower Ward Butchers' Order. By these Orders Wednesday is fixed as the day of the weekly half-holiday. In all the other areas of the County the shopkeepers arrange amongst themselves with regard to the day which they choose for the closing of their premises in the afternoon, and intimate such arrangement by means of a notice exhibited on their premises. 144 localities were visited on the day fixed for the weekly half-holiday, and, generally speaking, the closing of shops at 1 p.m. was very well observed. 199 contraventions were detected, consisting of 2 cases of street trading, 4 cases of the sale of non-exempted articles, and 193 cases of failure to exhibit the statutory notices. It was deemed sufficient to give the offenders a verbal caution.

Early Closing of Shops in the Evening.—The following Early Closing Orders are in operation within the County:—(1) General Closing Order for all shops in the Parish of Cambuslang; (2) Butchers' Early Closing Order in Blantyre; (3) Butchers' Early Closing Order in Baillieston and District; (4) Butchers' Early Closing Order in the Lower Ward; and (5) Barbers' and Hairdressers' Early Closing Order applicable to the Special Lighting Districts of Aitkenhead and Tannochside, Bellshill and Mossend, Blantyre, Bothwell, Cambuslang and Uddingston.

Three evening inspections were made in connection with the closing of shops under the Closing Orders and Act relating to the general closing hours. Four contraventions were detected. Three of these consisted of want of promptness in closing the shop door at the hour fixed, and the merchants concerned were warned and are being kept under observation. One case of selling non-exempted goods after the closing hour was detected. An information was lodged with the County Clerk in this case and legal proceedings instituted, which were successful.

Street Trading.—During the routine inspections on the weekly half-holiday, two vendors were detected selling non-exempted goods from lorries. On being warned by the Inspector they immediately left the district.

Assistants' Weekly Half-Holiday.—At all inspections made, special attention is given to the provisions of the Act with regard to the assistants' half-holiday. Two contraventions were detected, one where a shop assistant did not get off for her half-holiday till 4 p.m., and in the other no half-holiday at all was given. The employers were interviewed by the Inspector and the matter thus rectified.

222 contraventions in respect of failure to exhibit the assistants' half-holiday notices on the premises were detected. Warnings were given, and copies of the notice sent to the vendors concerned.

Over-employment of Young Persons under 18 Years of Age.—Attention is always paid to this provision of the Act, but no contraventions were detected.

Communications.—Many special visits were made as a result of communications received from traders requesting information regarding the provisions of the Act.

TABLE D.—SHOWING INSPECTIONS, VISITS TO SHOPS, &C., AND
CONTRAVENTIONS IN THE THREE WARDS OF THE COUNTY, 1928.

Inspections and Contraventions.	Upper Ward.	Middle Ward.	Lower Ward.	Total for County.
Inspections to Localities, - -	6	193	30	229
Visits to Shops, &c., - - -	108	1,784	84	1,976
<hr/>				
Contraventions—				
Failure to close: Weekly Half-holiday and under Closing Orders, - - - - -	—	2	—	2
Sale of non-exempted goods, -	—	6	—	6
Street Trading, - - - -	—	2	—	2
Failure to give assistants weekly half-holiday at 1.30 p.m., -	1	1	—	2
Failure to give assistants proper intervals for meals, - - -	—	—	—	—
Failure to provide seats for female assistants, - - - -	—	—	—	—
Employing young persons under 18 years more than 74 hours per week, - - - -	—	—	—	—
Failure to exhibit notices in terms of Act, - - - - -	8	398	7	415
	9	409	7	427

Bye-laws regulating Places for Public Refreshment.

Three inspections were made under the bye-laws for places for public refreshment in connection with applications from the owners of licensed premises to make structural alterations, so as to permit of a carrying-out trade after the hours prescribed by the bye-laws, viz., 11 p.m. on week days and 8 p.m. on Sundays. Reports dealing fully with each application were sent to the County Clerk.



COUNTY OF LANARK

MILK AND DAIRIES (SCOTLAND) ACT, 1914

County Veterinary Inspector's Report

FOR THE

UPPER, MIDDLE, AND LOWER WARD
DISTRICTS

OF THE

COUNTY OF LANARK

AND

THE BURGHES OF BIGGAR AND LANARK

FOR THE YEAR 1928.

To—

THE DEPARTMENT OF HEALTH FOR SCOTLAND.
 THE COUNTY COUNCIL OF THE COUNTY OF LANARK.
 THE DISTRICT COMMITTEE OF THE UPPER WARD.
 THE DISTRICT COMMITTEE OF THE MIDDLE WARD.
 THE DISTRICT COMMITTEE OF THE LOWER WARD.
 THE TOWN COUNCIL OF THE BURGH OF BIGGAR.
 THE TOWN COUNCIL OF THE BURGH OF LANARK.

MY LORDS AND GENTLEMEN,

I have the honour to submit the Third Annual Report of the work done by the Veterinary Department of the County of Lanark, under the Milk and Dairies (Scotland) Act, 1914, for the year 1928.

Inspection of Dairy Herds.

Every registered herd and, so far as known, every unregistered herd, however small, within the County and in the Burghs of Biggar and Lanark, was inspected at least once during 1928. Some herds, fully 5 per cent. of the whole, were inspected two, three, or more times during the year for various reasons, *e.g.*, when a case is reported by an owner or private veterinary surgeon under the Tuberculosis Order, or when we are called to investigate a sudden death. In such cases the whole herd, if available, is re-examined and a report sheet put through under the Milk and Dairies (Scotland) Act, 1914. The work was carried through as in 1927, by my assistant and myself, with a little temporary assistance from private practitioners at the beginning of the year.

I have included a statement, as in my previous Annual Reports, which summarises the work done under the Tuberculosis Order, inasmuch as such work is interwoven and almost inseparable from that carried out under the Milk and Dairies (Scotland) Act, 1914.

The inspection of dairy herds is still done as a routine measure *only* once a year, although it would be an easy matter to justify a bi-annual inspection. This could only be accomplished by adding to the Veterinary Staff.

In my last Report I referred to the salient features of this question, and showed how much more effective the work under the Milk and Dairies Act, and the Tuberculosis Order would become in the County if all herds were examined twice yearly, but I have not heard whether the subject has received serious consideration.

Among other reasons for increasing the veterinary inspection of dairy herds, I may again explain that many dangerous cases of marked tuberculosis of the udder and of the lungs attain a definite clinical development within a surprisingly short period of time, and that the detection of such cases still falls in great measure to the Veterinary Inspector owing to the negligence of many owners to report animals so affected.

It is obvious, too, that under a single annual inspection it may happen that some herds will not be seen for the greater part of two years, for they may chance to be inspected early in one and late in the succeeding year.

In failing to intensify this work, we now lag behind some Counties where two or more complete inspections of all herds are carried out each year.

This position might be regarded as perhaps unworthy of the reputation of a County that led the van so long in this connection, and which, under the optional powers of the Dairies, Cowsheds, and Milkshops Order of 1885 and Amending Order of 1889, carried out the veterinary inspection of its dairy cows for upwards of twenty years before any other County in Great Britain had essayed such work.

Most of the large Cities in Great Britain have required the quarterly and, in some instances, the monthly inspection of all their herds for many years, but the ready practicability of such work in Cities depends on the greater concentration of their herds, their smaller number, and on the fact that very many such herds are stall-fed, summer and winter. I have before referred to the difficulties attending the carrying out of more than a negligible amount of herd inspection during the grazing period in County areas. These are self-evident.

In the past we have contrived to make our yearly inspections as effective as possible by warning stock-owners of their obligation to report cases under the Milk and Dairies Act, as well as those that are amenable to the Tuberculosis Order, but despite our verbal and written instructions, which have on occasion been supplemented by

proceedings at Court against stock-owners, who failed to report flagrant cases under the Tuberculosis Order, there is still much evidence of their remissness in this important matter. The publication of Court results invariably increases for a time the crop of cases reported by owners, and it is regrettable that some are so lax in their duty and so intolerant of official control as to invite prosecution.

It might be well if stock-owners when they call in their private veterinary surgeon to any patient were to seek his advice in regard to the possibility of there being cases in their herds that should be reported, as coming within the scope of the Milk and Dairies Act or the Tuberculosis Order.

It is but seldom that cases of diseased cows are reported under the Milk and Dairies Act, those reaching us through the Medical Department being as a rule consequent on something going wrong with the whole milk of a herd, or on complaints made by the receiving dairyman or his customers.

Cases of ordinary mastitis or "weed of the udder" are commonly reported as probable cases of udder tuberculosis to be dealt with under the Tuberculosis Order. On being ascertained to be cases not amenable to the Tuberculosis Order, they are dealt with under the Milk and Dairies Act, but despite the considerable amount of work that has been done in this County during the past three years in putting restrictive measures on cows suffering from ordinary "weed of the udder" in one or more quarters, under Section 13 (1) of the Milk and Dairies (Scotland) Act, 1914, the reporting of such cases under the Act is conspicuously absent, nor has any endeavour been made to enforce notification by the prosecution of owners for failure to report. The construction of Section 13 of the Act adopted in Lanarkshire is perhaps peculiar to this County, but its result is that every case of "weed of the udder" should be reported under the Act, so that the Medical Officer may instruct us to inspect the cow and take a sample of the produce of the affected quarter for laboratory examination and later certification.

This requirement is avowedly based on the view that if a cow is suffering from a weed or has at any time suffered from such an affection, mild or acute, and it can be demonstrated microscopically that the product of the quarter, however little it may be, contains micro-organisms, the whole produce of the animal is liable to contamination. When it is considered that some scores—even

hundreds—of such cases occur throughout the County every year, it will be readily understood that if the demand that they should be reported as they occur by an attending veterinary surgeon or by the owner is insisted on, the amount of work required of the Veterinary Department will be enormously increased, for we have known a single herd to experience more than twenty cases in a single year.

In every case which we detect and, under our instructions, report on, disciplinary action by correspondence is taken by the Medical Department, and we have always many scores of such cases on our list.

In practice, the ban put on the produce of the healthy quarters of the udder in such cases lasts not only for the short period when the animal is feverish and sick and the morbid process active, but until the affected quarter is completely atrophied after many months and no longer yields any secretion at all in which the organisms that cause inflammation of the udder can be demonstrated microscopically.

When the Milk and Dairies (Scotland) Act, 1914, became operative, the Medical Department issued to every herd-owner a placard to be hung up in the cowshed, setting forth the relative sections of the Act, which the County Medical Officer intended and expected would serve as an instruction to owners to report to him, *inter alia*, every case of mastitis or weed that occurred. This expectation has not been fulfilled, nor is it likely to be soon, unless a further specific instruction is sent out in regard to such cases.

Indicted cows are dealt with in a variety of ways by their owners. On receipt of the Medical Officer's letter asking them what steps they propose to take to observe the terms of the quoted sections of the Act, some owners sell the cow at once for slaughter, although she may be a heavy milker, to avoid further trouble, and because they do not appreciate the distinction to be drawn between a case so indicted and the graver case of tuberculosis of the udder, which they clearly know must be slaughtered, with compensation under the Tuberculosis Order. Others use the produce of the healthy quarters for rearing calves or feeding pigs or hens or even for household use, but because it is possible, as has been stated, to prove the presence of streptococci in the table-spoonful of produce which an atrophied quarter, the result of a weed attack, may yield for the greater part of a year, the produce of her other quarters is accounted inimical to public health for that period of time, on the ground that it is liable to contamination.

Occasionally the cow is going dry when her produce is banned, and if she is due to calve in a month or two, the owner notifies the Medical Officer after she has calved, with the object of getting the restrictions removed. He is then asked to have the cow examined by his private veterinary surgeon, who may certify her to be in perfect health, and his opinion may or may not be based on the microscopic report from the County Laboratory of a sample of the produce submitted for examination.

I am then requested to inspect the cow for the Local Authority, and if the affected quarter is not quite dry, and the microscopic examination of its produce shows that it still contains organisms, the restriction is maintained.

In reporting these cases to the Medical Officer, unless we are of opinion that the inflammatory process is so acute as to render the whole milk of the cow unwholesome, or the local condition such as to render contamination of the milk of the unaffected quarters probable, we merely certify that the product of the affected quarter contains streptococci or other organisms, leaving it to the Medical Officer to interpret our certificate as he chooses. (*N.B.*—It is worthy of note, as signifying the defensive action of the udder tissue against the organisms that cause inflammation of the udder, that, in certain cases, after a month or two, the abnormal-looking product of the affected quarter is reported on as negative from the Laboratory.) The risk of contamination from an ordinary weed, except in the early stages or when abscess formation has supervened, is, in our opinion, negligible.

No milk producer would be foolish enough to allow the abnormal product of an affected quarter into his milk supplies, as such procedure would inevitably spoil the marketability of the whole, and cause it to be returned to him. There are many indicted cows to-day yielding heavily from three healthy quarters milk that is quite wholesome in our opinion, and the possibility of any secretion from a weeded quarter at the later atrophic stages of the disease accidentally finding its way into the milk is very remote.

The degree of the inflammatory process in cases of weed varies exceedingly from a milk catarrh to an acute mastitis, ending in complete atrophy or wasting, and in some of the latter cases abscess formation precedes the stage of atrophy.

In benign cases, colloquially called “soft weeds,” the only evidence of mischief may be a very slight alteration in the appearance of the

milk secreted with little evidence of tenderness in the quarter, and recovery is apparently complete in a few days.

Our procedure in regard to the problem of the "weeded" cow has been described at some length, as it is desirable that an authoritative interpretation of this section of the Act should be given which would be of general application throughout the country.

It is entirely a question of interpretation and one that demands a stated opinion from the Department of Health for Scotland.

Cowsheds.

Although required by the Medical Officer to take note in general terms of structural defects in cowsheds and dairy premises of producers of ordinary market milk, we are instructed not to discuss the matter in any way with the owners. This requirement precludes the utilisation of unique daily opportunities to instruct and encourage owners from the veterinary point of view.

It is evident that during the year a considerable advance has been made in the renovation of existing and the building of new cowsheds. The advance has perhaps been greater in 1928 than in any preceding year.

When such work has been done, even under the control of architects of repute in other work, but without taking, in the first instance, the advice of the Local Authority, there has been occasionally much evidence of a lack of knowledge regarding the essentials that help so much in the endeavour to accomplish daily a clean milk supply with the minimum of labour.

Dairy Methods.

The standard of work done by the dairymen in the County rises steadily, and the number of those who clip the hair periodically from the udders, tails, quarters, and flanks of their milch stock is greatly increased, and these improvements in methods must be reflected in the quality of our milk supplies.

It would be well if some of those who are chronic transgressors were submitted to a special regime of milk sampling in their herds for the estimation of bacterial content and action of some kind taken in special cases.

Laboratory Examination of Mixed Samples of Milk.

During 1928 we received only one report from a City Authority (Glasgow) that a mixed sample of milk, taken from the supply of a Lanarkshire herd, had been proved to contain tubercle bacilli, and the usual procedure was adopted for the detection of the responsible animal.

As there is no reason to suppose that the cities of Glasgow and Edinburgh—the chief receivers of Lanarkshire milk—curtailed, during the year, their usual routine examination of mixed samples of milk for the detection of tuberculous infection, it is highly satisfactory that Glasgow found only one infected sample and Edinburgh none.

As stated in my last Report, the taking of mixed samples of milk by County officials from the supplies of herds for the detection of animals voiding tubercle bacilli in their secretion is not a matter of routine practice.

This is a question for the Medical Department to decide, but so long as the clinical examination of herds is limited to one veterinary inspection yearly the taking of mixed milk samples for the above purpose would be likely to yield desirable results. If the herds were inspected *more than once per annum* any argument in favour of taking mixed samples of milk during transit for laboratory examination would lose much of its force.

Water Bowls in Cowsheds.

The proved utility of a constant and pure supply of cold water conveniently placed for each cow, has caused a great wave of installation of these conveniences during the past few years. There are now several hundreds of byres in the County so equipped; the number increases yearly; and we know of no case in which they have been discarded after being installed, nor has any stock-owner offered any relevant criticism of their value.

In the current year we are taking a census of the cowsheds so equipped, and hope to set forth the result in our next Report.

Competing contractors have gradually reduced the prices for water bowls until they are now almost as low as 50 per cent. of what they were originally, and this has greatly encouraged a very desirable movement.

An ever-present supply of fresh water for each cow enables better digestion; improves health; saves labour in the byre; and curtails expenditure effectively, as in many cases all artificial feeding stuffs are given dry or in an uncooked state, thereby cutting out coal costs and the laborious work of handling, mixing, and carrying pailfuls of sloppy food to the animals several times daily.

Not a pint of warm water is used in some byres, except for sick cows, and it is frankly stated that the result in milk production is now as good, and often better, than under the old regime.

Milk (Special Designations) Order (Scotland), 1923.

At the 31st December, 1928, the number of herds licensed for the production of graded milk within the County was:—"Certified," 16 herds; "Grade A (tuberculin-tested)," 18 herds—a total of 34 tubercle-free herds. "Grade A," 4 herds. Pasteurizing licences, none.

Compared with the figures for 1927, this shows a decrease of one certified licence, the same number of "Grade A (tuberculin-tested)" licences, and of "Grade A" licences.

Of our 34 tubercle-free graded herds, 21 are now under the tuberculin test only once a year. The other 13 are tested twice per annum, and, in terms of the Order, this will be continued until, under two successive testings, no reactor has been disclosed. The available amount of graded milk remains greater than the demand, and this rather deters the coming in of several herds that are practically ready for licensing.

Several stock-owners, who carry no licence under the Order, endeavour to maintain their herds tubercle-free to secure the advantages this confers in respect of the value and health of their animals.

Tuberculin-Testing of Graded Herds.

Since we adopted the intradermal test in lieu of the subcutaneous test 2½ years ago, we have used very little subcutaneous tuberculin, and that only by way of experimental cross-testing.

The economic advantages of the intradermal test were referred to in my last Report, and there is no reason for us reverting to the general use of the subcutaneous test.

I also referred at some length to the possible venues by which infection might be brought to tubercle-free graded herds, and laid particular stress on the danger of the introduction into such herds, either in emergency or otherwise, of animals coming with a veterinary certificate declaring them as having recently passed the designated tests (as distinguished from the "prescribed tests" under the Order), but without giving any information as to whether they had been exposed to infection or not.

I indicated that what was allowed in this County in regard to single animals and to whole herds when brought initially under the Order was, in my view, contrary to the terms of the Order.

When, later, the Department of Health for Scotland called the attention of the District Committees in the County to their evident misinterpretation of what the Order requires, the Upper Ward District Committee at once took steps to put the matter right in their area, which embraces the majority of our graded herds. In the Upper Ward District, therefore, in future, no animal will be allowed into a graded herd until it has passed the "prescribed test," nor will any herd be licensed to produce Certified or Grade A (TT) milk until the members of it have passed the "prescribed test."

I annex hereto, as Appendix I, a paper in the joint names of my Assistant and myself on certain phases of tuberculin-testing and the maintenance of tubercle-free herds, which was submitted as a report to the County Executive Committee and was also published recently in the *Veterinary Record*, the *Scottish Farmer*, and the *Hamilton Advertiser*. This paper, we believe, sets forth some fresh aspects in the study of tuberculin-testing, &c., based on our experience, and we were encouraged to write it by many who had heard our views expressed publicly, or had got to know of them through correspondence.

Eastwood Herd, Lesmahagow (Mr. Samuel A. Ballantyne).

In my last Report, I referred to an extraordinary case that was then *sub judice* where there was evidently a rapid spread of infection in the chief byre, and where 32 out of 33 cows reacted to tuberculin.

It may now be competent to refer to this interesting case, since the action, which the owner, Mr. Samuel A. Ballantyne, Eastwood Farm, Lesmahagow, raised against (first) The Upper Ward District Committee of the County Council of the County of Lanark, and (second) John Weir, Assistant County Veterinary Inspector, has

just been disposed of. A remarkable commentary has been furnished to unjustifiable allegations against Mr. Weir by the fact that the action, which purported to be a moderately stated claim for £100 against the Local Authority and Mr. Weir, on the ground that Mr. Weir had been negligent and culpable in the application of the tuberculin tests to Mr. Ballantyne's herd, was not pursued by Mr. Ballantyne. On the contrary, the Local Authority had to force Mr. Ballantyne to bring the action to Court, when the Sheriff granted absolvitor to the Local Authority and Mr. Weir, with expenses against the pursuer.

History of the Grading of Eastwood Herd.

Mr. Ballantyne has admitted in public that he was considerably indebted to my advice when he was building up a tubercle-free herd, both before and after it was graded.

I believe I carried his full confidence until I was summoned to the farm on December 8th, 1927, when Mr. Weir interrupted at the 24th cow the application of further diagnostic doses, because so many cows were evidently reacting to the initial dose. When I reached the farm I endeavoured, unavailingly, to find out how infection had got into the chief byre.

Mr. Ballantyne was apparently so upset by the catastrophic results disclosed by the test that he did not meet my attempts to help and advise him in the spirit in which my visit was made, and this made it impossible for me to return to Eastwood for that purpose.

Eastwood herd was first licensed in February, 1925, and the following table shows the dates of all the "prescribed" tuberculin testings of the herd; the kind of tests applied; the number of animals tested; the number that passed; and the number that failed, viz. :—

CHRONOLOGICAL TABLE OF TUBERCULIN-TESTING AT EASTWOOD FARM,
LESMAHAGOW

Date.	Tests applied.	No. of Animals tested.	Non-reactors.	Reactors.
30/ 1/25	Subcutaneous and Ophthalmic,	35	33	2
17/11/25	Do. do.	45	45	—
5/ 5/26	Do. do.	53	53	—
26/ 5/27	Intradermal and Ophthalmic,	63	60	3
14/12/27	Do. do.	43	11	32
*17/ 7/28	Do. do.	41	10	31
†21/ 8/28	Do. do.	* * 16	16	—

* Re-testing at behest of Scottish Department of Health.

** Heifers.

† These animals were tested by me at Mr. Ballantyne's own request—acceded to because his appeal against the withdrawal of his licence was still pending.

In his condescendence in an action raised against the Local Authority and Mr. Weir, Mr. Ballantyne alleged:—

“ That the inoculation of his herd on 6th December, 1927, with tuberculin by Mr. Weir was improperly carried out, and the whole of the supposed results are false and unreliable so far as they are supposed to show reaction on the part of the cows to the injection of tuberculin. Mr. Weir failed to take the proper precautions and to exercise the usual care and skill required by a veterinary surgeon while performing the operation of inoculation, in respect that he did not shave or clip the hair closely on the necks of the cows, nor thoroughly clean the remaining hair and the skin before inoculation. There was therefore an obvious source of danger in respect that foreign matter and particles of dirt could be introduced by the needle into the skin of the animal. Further, he did not sterilize his instrument either before beginning to test the cows or after the inoculation of each cow. After he had done a number of the cows the syringe which he was using broke, and for the moment he was at a loss to know how to proceed, but he recollected he had what he described as an old one in his car, which was at the farm. This he procured and proceeded to use without taking the necessary precaution of sterilizing it. Further, he took no measurements of the skin of the animals before commencing the test, and in all these respects he was negligent, and for his negligence the Upper Ward District Committee, on whose behalf he was acting, are responsible. In addition, the tuberculin which was used by Mr. Weir and which was supplied to him by the District Committee was unfit for use. It had been kept far too long, and not under proper conditions.

“ As a result of the defective method of carrying out the test and of the defect in the condition of the tuberculin many of the cows showed sores on their necks at the point of inoculation, and these were erroneously supposed by the District Committee, their Chief Veterinary Officer (Mr. Begg) and Mr. Weir to be signs of reaction to the test. In fact, they were in almost every case due to septic poisoning, caused by the introduction of foreign matter into the skin of the animal by the instrument used by Mr. Weir, as above described. In many of the cows there was marked necrosis of the skin at the seat of the

“ injection, and when the hair was clipped off scabs were present
 “ with pus underneath, indicating that the site of the injection
 “ was septic. In the case of cows Nos. 22 and 29, two injections
 “ had been given—one of which produced an apparent reaction
 “ and the other did not. In the case of No. 24 there was
 “ sufficient discharge from the seat of injection actually to cause
 “ matting of the hair, which is a condition totally distinguished
 “ from that arising from the normal reaction to the intradermal
 “ test properly administered. In the case of cow No. 31, the second
 “ injection had been given in the tail on 8th December with no
 “ resulting reaction, although there was a large scab on the neck
 “ with swelling and pain from primary injection given on the
 “ 6th.

“ As the result of the negligence of the Upper Ward District
 “ Committee and of Mr. Weir, for whom they are responsible,
 “ he has sustained loss and damage. He has been put to
 “ considerable personal expense and has suffered great anxiety
 “ on account of the extraordinary position created by the
 “ circumstances narrated. His reputation as a producer of
 “ Grade A (TT) Milk has suffered severely, and the reputation
 “ of his herd, which he had built up at much expense and with
 “ great care, has been seriously hurt. He has also incurred
 “ expenses for veterinary and legal advice. It is possible that
 “ he will be unable in future to obtain for his milk the price
 “ which otherwise—and but for the actings hereinbefore
 “ narrated—he would have received. The District Committee
 “ have issued to him the usual licence for 1928 without any
 “ modifications, although paragraph 4 (1) of the said Order
 “ provides for any such modifications as the circumstances may
 “ require. They have, however, sought by a covering letter,
 “ dated 5th January, 1928, to restrict the use of the licence to
 “ the produce of the 9 cows in the small byre. This procedure on
 “ the part of the District Committee is incompetent and invalid.
 “ and if they maintained the accuracy and validity of the said
 “ tests of his herd and the results thereof, their duty was to
 “ refuse, or to revoke the licence in question, and so afford him
 “ the opportunity of appealing to the Department of Health in
 “ terms of Section 10 (2) of the said Order. His loss and damage
 “ is moderately stated at £100.”

In meeting these allegations, I made the following report to the Local Authority, which is self-explanatory, viz. :—

“ The inoculation of the herd by Mr. Weir was carried out
 “ with the utmost care and skill and with all usual and necessary
 “ precautions. The shaving or clipping of the hair closely on the
 “ necks of the cows and the cleaning of the remaining hair and
 “ skin before inoculation has been proved by experience to be
 “ an unnecessary and prejudicial operation. As the result of
 “ long practical experience, Mr. Weir and I only remove hair
 “ by clipping when it is unduly long, as it has been found that
 “ in many instances the interpretation of the results of the
 “ intradermal test is rendered difficult by the use of clipping
 “ or shaving instruments prior to the operation of inoculation.
 “ The skin on the necks of the pursuer’s animals was found to be
 “ clean and the hair sufficiently short to permit of inoculation
 “ without either shaving or clipping or the use of disinfectants.
 “ After Mr. Weir had injected 24 cows, the glass barrel of the
 “ syringe which he was using broke. This is a common
 “ occurrence, and in all probability was due to the process of
 “ sterilization to which the syringe had been subjected before
 “ use. Mr. Weir at once went to his car for his emergency
 “ syringe, adapted a new needle to it, and completed the work
 “ of that day on the herd. The second syringe had been
 “ sterilized after it had been previously used, and was thoroughly
 “ aseptic. Mr. Weir took no measurements of the skin of the
 “ animals before commencing the test. The extensive experience
 “ of Mr. Weir and myself has satisfied us that an attempt to
 “ interpret the result of injected tuberculin intradermally by
 “ measurement with instruments is unsatisfactory and gives rise
 “ to misleading results. Examination of the swelling produced
 “ in the neck by the injection of concentrated tuberculin
 “ intradermally by palpation and ocular demonstration is more
 “ exact alike in respect of the size, shape, and tenderness of the
 “ reaction, and has been found to be much more delicate and
 “ reliable. The results of the tests applied by Mr. Weir were
 “ accurate and reliable and clearly demonstrated that the 32
 “ animals in the large byre were definite reactors. The tuber-
 “ culin which was used by Mr. Weir was ‘ concentrated
 “ tuberculin ’ obtained from the Royal Veterinary College,
 “ London, under a contract between Sir John MacFadyean and
 “ myself, and was ordered not earlier than 6th October, 1927.

“ It was thoroughly fit for use, was well kept, and was in proper
 “ condition. Mr. Weir was not guilty of negligence. He was
 “ acting not on behalf of the Upper Ward District Committee,
 “ but on behalf of Mr. Ballantyne as the veterinary surgeon
 “ nominated by the District Committee to do so.

“ In the case of an animal which is reacting the effect of
 “ inserting the needle to administer a second diagnostic dose in
 “ the skin, which is already in a tumefied tender condition,
 “ causes the track of the needle to function as a drain in a
 “ certain percentage of cases. The result is that a little blood
 “ or serum exudes from the inflamed tissues and coagulating out-
 “ side causes the formation of a film or scab varying in size.
 “ This condition is well known and easily recognised by
 “ veterinary surgeons who have had such extensive experience in
 “ administering the ‘intradermal’ tuberculin test as Mr. Weir
 “ and I have had, but may be mistaken by veterinary surgeons of
 “ less experience in such matters for the condition described in
 “ Condescence 10. On occasion a small scab indicating the
 “ occurrence of slight exudation is seen at the site of injection
 “ as a result of the first dose and before the second dose has
 “ been given. It has also been found, as a result of experience,
 “ that in a certain percentage of cases, even in non-reacting
 “ animals, the site of the previous test six or twelve months
 “ before is recognisable through the persistence of a tiny percep-
 “ tible or palpable hard spot on the skin, which would have the
 “ effect of leading persons inexperienced in the test to the
 “ conclusion that the animals have been injected at two places
 “ with only one resultant reaction. This is exactly what
 “ occurred in the case of cows Nos. 22 and 29. Like all the
 “ others, they were only injected at one place on the neck.

“ Neither the Upper Ward District Committee nor Mr.
 “ Weir has been negligent, and neither of them is responsible to
 “ Mr. Ballantyne for the loss or damage which he sustained.
 “ Any loss or damage sustained is entirely due to the fact that,
 “ as the result of the tuberculin test properly administered, 32
 “ animals in his herd have proved to be reactors. There
 “ was issued to Mr. Ballantyne the usual licence for 1928
 “ without any modifications. It was unnecessary to attach any
 “ modifications to the licence so issued in respect that, under
 “ Part II of the Third Schedule to the Milk (Special Designations)

“ Order (Scotland), 1923, Mr. Ballantyne is under an obligation
 “ to remove from his herd any animal which is found to be a
 “ reactor. The letter of 15th January, 1928, from the Upper
 “ Ward District Committee, merely explained to Mr. Ballantyne
 “ the effect of the provisions of the Order, and proceeded on the
 “ assumption that he would keep the reacting animals separate
 “ from the non-reacting animals and not sell as Grade ‘A’
 “ tuberculin-tested milk the produce of the reacting animals.
 “ In renewing his licence the District Committee went to the full
 “ extent of their powers to show their sympathy with him. Mr.
 “ Ballantyne seeks in some way, which is not apparent to the
 “ Upper Ward District Committee or to Mr. Weir, to found on
 “ their considerate action as affording him an excuse to recover
 “ damages from them in respect of the infection present in his
 “ herd through causes which are unknown to the Upper Ward
 “ District Committee or to Mr. Weir, and for which they are in
 “ no way responsible.

“ Mr. Ballantyne does not aver that the animals which were
 “ certified by Mr. Weir and myself to be reactors were not, in
 “ fact, reactors and properly diagnosed as such.”

On December 17th, 1927, I certified to the Local Authority, as the result of applying the prescribed tests, that of the 43 animals tested, 11 had passed.

On December 20th, 1927, the District Clerk, after a meeting of the Upper Ward District Committee, notified Mr. Ballantyne that 32 of his animals had proved to be reactors, and only 11 had passed satisfactorily.

In expressing the Committee's sympathy with Mr. Ballantyne in this unexpected result, he indicated their understanding that Mr. Ballantyne had given an undertaking to the Medical Officer of Health to keep the reactors separate from the non-reactors, and that he would only sell as graded milk the produce of the non-reacting cows. Consequently they did not propose, meantime, to withdraw his licence. He also stated that his Committee were willing to re-test the herd after a period of 2 months at the cost of the Local Authority.

In his reply of December 27th, 1927, Mr. Ballantyne intimated that he was lodging an appeal with the Department of Health for Scotland against the founding on the last test. His appeal, of date 27th December, stated that his stock had been practically free of reactors for 4 years. (*N.B.*—Compare this statement with foregoing table.)

Meantime, Mr. Ballantyne's case was taken up by the Scottish Farmers' Union, whose agent, Mr. A. W. Hunter, on December 30th, notified the District Clerk that Mr. Ballantyne's advisers were convinced that the results of the test were absolutely erroneous.

On January 7th, 1928, the Department of Health for Scotland notified Mr. Ballantyne that, as his licence had not been revoked, his appeal did not arise.

On January 5th, 1928, the District Clerk, in writing to Mr. Ballantyne, re-stated as follows:—

“ You will, of course, understand that you will only sell as
“ Grade A (tuberculin-tested) milk the produce of the cows
“ which have passed the test.”

On January 7th, 1928, in a letter to the District Clerk, Mr. Hunter re-stated Mr. Ballantyne's repudiation of the results of the tests, and in a further letter of January 23rd, 1928, he asked the District Clerk to withdraw any suggestion that Mr. Ballantyne's licence was subject to any conditions to which he was not, in fact, at present conforming.

In his reply of January 27th, the District Clerk, *inter alia*, stated his regret that it was not in the power of the Public Health Committee to disregard the result of the tests, and that they were not to be taken as admitting that there were obvious and grave defects in the conduct of the tests in question.

Mr. Ballantyne's claim for damages was intimated on January 30th by his agents, who threatened Court proceedings without further intimation unless liability was admitted.

On February 3rd, the District Clerk repudiated such liability, and on the same date the County Medical Officer advised Mr. Ballantyne by letter that he had requested me to re-test the cows on February 13th at the expense of the Local Authority, and asked him to signify that he was agreeable.

This was acknowledged on 4th February, and on 11th February Mr. Ballantyne wrote that he preferred that the Authority should nominate a neutral man to test the herd.

On February 21st, the District Clerk wrote to Mr. Ballantyne that the Public Health Committee regretted they could not see their way to nominate a veterinary surgeon other than Mr. Begg to re-test the herd; that there would be no objection to his having experts present; and that Mr. Begg would be willing to observe any precautions such experts suggested.

On February 21st, in acknowledging a copy of the defences of the Local Authority to the District Clerk, Mr. Ballantyne's agent asked him to agree to the suspension of the action without prejudice to either party for reasons stated.

On the following day the District Clerk intimated his agreement to suspension of the action in view of the re-test of the animals, but without prejudice.

Eventually the action was sisted *sine die*.

On March 5th, 1928, the District Clerk wrote Mr. Ballantyne asking a reply to his letter of 21st February as to whether he was prepared to allow Mr. Begg to re-test his herd, and a copy was sent to his agents.

On 14th March, Mr. Ballantyne, in the course of his reply, reiterated his suggestion that the Local Authority should nominate an independent neutral veterinary surgeon to carry out the re-test, and that the subcutaneous and ophthalmic tests should be used. (*N.B.*—The results of the application of the subcutaneous test are profoundly prejudiced when it is adopted soon after the use of the concentrated tuberculin employed in the combined intradermal and ophthalmic tuberculin tests.)

On the same date, the County Medical Officer notified the District Clerk that the Manager of the Lesmahagow Creamery, which received the produce of Mr. Ballantyne's herd, had telephoned to ask if Mr. Ballantyne still had a licence for the sale of Graded (TT) milk, and that he had informed him that his licence only covered the produce of the non-reacting cows. He also recommended the withdrawal of the licence on the ground that Mr. Ballantyne was not carrying out the provisions of the Milk (Special Designations) Order (Scotland), 1923.

On 13th March, the Secretary of the receiving Dairy Company, notified the County Medical Officer that it was known to the public they were selling milk as Grade A (TT) from animals that had not passed the test. He asked immediate attention to the matter, as the suspicion cast on any source of supply placed them in a very nasty position.

On 16th March, the District Clerk, by letter, asked Mr. Ballantyne to assure him that none of the milk produced by his reacting cows was sold as tuberculin-tested milk, and in sending a copy to Mr. Ballantyne's agents, he reminded them that he had not yet heard from them or Mr. Ballantyne regarding the offer to re-test the herd.

On March 16th, the agents, and on March 17th, Mr. Ballantyne, wrote the District Clerk that they regarded the licence in Mr. Ballantyne's hands as applying to the whole herd.

On 19th March, the District Clerk intimated the decision of the Public Health Committee that they had no alternative but to cancel Mr. Ballantyne's licence, and asked that it be returned. In a further letter the Clerk informed Mr. Ballantyne of the Committee's intention to adhere to the previous decision that Mr. Begg should re-test the herd in the presence of experts, taking whatever precautions they desired.

On March 19th, the Secretary of the Dairy Company, in writing the County Medical Officer, reiterated his demand for a clear lead as to what he should do in the circumstances to keep him right with the consuming public.

The District Committee replied on 21st March that they had asked Mr. Ballantyne to return his licence, and two days later Mr. Ballantyne, in acknowledging the letter cancelling his licence, intimated an appeal to the Department of Health for Scotland, a copy of which showed that he desired to be heard by the Department on the appeal.

As a result of the District Committee's intimation to Mr. Ballantyne of the withdrawal of his licence, Mr. Ballantyne notified the District Committee that as his milk was now sold as ordinary milk at 3d. per gallon less than when graded, he held the District Committee and Mr. Weir responsible for the loss he would sustain.

After a considerable correspondence, and having heard the agent of Mr. Ballantyne at a meeting of the District Committee, the District Clerk formally revoked his licence, and two days later Mr. Ballantyne's agents notified the District Committee that they had appealed against the Committee's decision to the Department of Health for Scotland. Thereafter, the Department of Health called for a complete statement of the whole position, and on 14th May intimated that Sheriff Pitman, K.C., had been appointed a Commissioner to conduct a Special Inquiry into the case, and to report, with Dr. Leighton and Mr. A. Gofton, F.R.C.V.S., as assessors.

The Inquiry, which was fixed for Friday, 25th May, 1928, at 10.30 a.m., took place at Lanark.

Mr. Ballantyne was represented by his agent and Mr. M'Kinnon, advocate; the Local Authority and Mr. Weir by Mr. Robert Bryce Walker, District Clerk.

Mr. Ballantyne was the *only witness* examined. In the course of his cross-examination the agent for the Local Authority repeated the offer to re-test Mr. Ballantyne's herd free of cost in presence of any experts he chose to nominate, and subject to such precautions as they cared to prescribe.

The Commissioner had already indicated very clearly that in his view Mr. Ballantyne had acted in an ill-advised manner in spurning the offer previously made by the Local Authority, who, he stated, had all along acted in the most friendly and considerate way towards him. In these circumstances, Mr. Ballantyne's counsel requested an adjournment to allow his client and his advisers to go out and reconsider the offer of the Local Authority.

When they returned, they endeavoured to secure that the Local Authority would employ a neutral veterinary surgeon, but this was firmly resisted by the District Clerk, who said that if they did not now accept the offer so often held out, the Local Authority would stand on their legal position.

Sheriff Pitman eventually closed the Inquiry without calling any other witness, and intimated that he would report to the Department of Health.

By subsequent mutual arrangement, the re-testing of the herd intradermally and ophthalmically was done by me on July 17th in the presence of Dr. Leighton, of the Department of Health, and Mr. Weir, my assistant, while Mr. Ballantyne and the Scottish Farmers' Union were represented by Mr. P. Wilson, M.R.C.V.S., Lanark, and Mr. D. Campbell, M.R.C.V.S., Rutherglen.

In conducting the test, I observed every precaution desired by Mr. Ballantyne's veterinary advisers, and they signified before witnesses their complete satisfaction.

As they desired to visit the herd at the 24th hour, I arranged to meet them next day and take observations.

It was then evident that in the short period of 24 hours and to the small sensitizing dose of tuberculin only, the former reactors were all responding already to both tests, and accurate measurements and assessments were made and all figures checked.

As in a great many cases, the intradermal reactions were at that early hour very large and painful and many eyes were in a very sore state, I requested Mr. Ballantyne's advisers (on humane grounds) to come next day prepared to say whether they desired me

to forgo the application of the diagnostic dose of tuberculin to any of the animals. We met at the 48th hour, when the diagnostic dose was due, and they agreed that I need not apply the intradermal second dose on 6 cows or the ophthalmic second installation on 18 cows.

I then completed the tests in the case of all the other animals to their satisfaction. Dr. Patterson, County Medical Officer, was present.

At the 72nd hour, final observations were made, when I declared my opinion and that of Mr. Weir that out of 32 cows in the large byre 31 had reacted to both tests, and one aged cow showed no reaction to either test. On the former occasion this cow also passed both tests. The animals in the small byre again proved to be non-reactors.

I reported the results of the re-testing to the County Medical Officer in the following terms, and a copy was sent to Mr. Ballantyne's agents (*N.B.*—We have not been favoured with a copy of the report made by Mr. Ballantyne's advisers), viz. :—

“ Veterinary Department,
“ County Offices,
“ Hamilton, 21st July, 1928.

“ Dr. J. HUME PATTERSON,
“ County Medical Officer.
“ Hamilton.

“ DEAR SIR,

“ THE MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1923.
RE-TESTING OF THE DAIRY HERD AT EASTWOOD FARM,
LESMAHAGOW—MR. SAMUEL BALLANTYNE.

“ I have to report that in terms of your request, based on a decision of the Upper Ward District Committee, I visited Eastwood Farm on the 17th, 18th, 19th and 20th July, and applied the ‘prescribed’ double intradermal and ophthalmic tests to 32 cows in the large byre and 8 cows and 1 bull in the small byre—a total of 41 animals.

“ It will be observed that the number tested is two less than in the original test of December 6th to 14th, 1927, one cow having died in the big byre and one cow having been sold as a fat animal from the small byre.

“ The tests were administered by my own hands in the presence of two veterinary surgeons representing the owner, and who were in

daily attendance, viz. :—Mr. Peter Wilson, M.R.C.V.S., Lanark, and Mr. Donald Campbell, M.R.C.V.S., Rutherglen, and who, in the presence of witnesses, acknowledged their entire satisfaction with the whole procedure.

“ Dr. Leighton, of the Department of Health for Scotland, was present on the 17th, and witnessed the initial work, and the administration of the sensitizing doses of tuberculin for both tests.

“ On the 19th you were a witness of the giving of the diagnostic doses of tuberculin and other procedure, and on the 20th you were present when I interpreted the results of the tests, of which full notes were taken by the veterinary surgeons named, as well as by my assistant, Mr. Weir, who accompanied me daily.

“ My clerkess was present on the first three days, and took certain notes which I desired to have.

“ On the 18th instant, 24 hours after the application of the sensitizing doses only, it was so apparent that most of the cows were already exhibiting soreness of eye with discharge, and tender swellings in the neck, indicative of reaction to the tests, that I asked the two veterinary surgeons, on humanitarian grounds, to be good enough to come next day prepared to say whether they desired me to exempt any of the animals from the infliction of the larger diagnostic doses of tuberculin, which would necessarily exalt the reactions and the discomfort of the animals. Accordingly, I was requested on the 19th instant *not* to apply the ophthalmic test in 18 cases and the intradermal in 6 cases.

“ The results obtained have proved to be a replica, practically complete, of those got in December, 1927.

“ All the animals in the large byre have reacted but one (No. 36), which was the single exception also in December.

“ Again, as in December, 1927, no animal reacted in the small byre.

“ The net results are :—

Reactors,	...	...	...	...	...	31
Non-Reactors,	...	...	...	...	...	10
						—
Total Animals tested,	...	...	...	...	...	41
						==

“ If any distinction is to be drawn between the results of this and the former testing it is perhaps that, whereas in December eight reactors to the intradermal test exhibited no reaction to the

ophthalmic test, every reactor on this occasion has given positive results to the eye test. Nevertheless, in the case of three animals the ophthalmic reaction was comparatively little, amounting only to an ominous sensitiveness never seen in a non-reactor, and consisting of increased vascularity without exudate at the time of examination. On the results of the eye test alone they might conceivably have been regarded, *pro tem.*, as doubtful reactors, but two of them have reacted well intradermally (Nos. 23 and 31).

“ The third cow (No. 1) gave also a relatively small reaction to the intradermal test on this occasion, the skin measurement having increased only from $8\frac{1}{2}$ to $15\frac{1}{2}$ millimetres, but the swelling was characteristically diffuse, oblong and tender. Moreover, she reacted strongly to the intradermal test in December, 1927.

“ The results of this retesting of Eastwood herd, by my own hands, after an interval of seven months, have corroborated in every way the admittedly astounding revelations disclosed by the same tests applied by my assistant, Mr. John Weir, M.R.C.V.S., D.V.S.M., in December, 1927.

“ I need not say that Mr. Weir carries my entire confidence as an expert in the performance of this work, and that the manner of testing the herd in December was in accordance with our usual procedure, which we propose to maintain.

“ May I submit, while sympathising with Mr. Ballantyne, that what has been revealed demonstrates anew the reliability and specificness of the double tuberculin test, and amply justifies the confidence I have maintained in the face of much critical opposition, both lay and professional.

“ Yours faithfully,

“ HUGH BEGG.”

At a meeting of the Upper Ward District Committee, held on 15th October, 1925, the following record was made, viz. :—

“ Upon approval of the minutes of the Public Health Committee, of date 17th September, 1928, the Clerk reported that he had to-day submitted to the Public Health Committee a letter from Mr. Samuel A. Ballantyne, of Eastwood Farm, Lesmahagow, asking permission to retain the animals which had been established to be reactors until they came to the calving, when they could be disposed of. He also explained that the Public Health Committee were of opinion that, as the District Committee had withdrawn Mr. Ballantyne's licence, and

Mr. Ballantyne's appeal against their decision to the Department of Health for Scotland was still pending, they could not entertain his request. The District Committee approved.

"In this connection, Colonel Grierson drew attention to the fact that the conduct of the District Committee's Veterinary Inspectors had been called in question and that they had emerged from the ordeal to which they had been subjected with complete credit. He moved that in these circumstances the District Committee affirm their confidence in Mr. Begg and Mr. Weir, and put on record their appreciation of their services to the Committee. This was unanimously agreed to."

If reference is made to the table setting forth the dates and results of all the prescribed tests conducted at Eastwood, it will be seen that no reactor was discovered at the tests carried out on November 17th, 1925, and May 5th, 1926. In accordance with the terms of the Order, the herd then entered on a yearly test.

The herd was, therefore, not tested again till May 26th, 1927, when 3 reactors were disclosed in the large byre. As these animals had been housed in the large byre during the preceding six winter months, it is permissible to assume that one or more of them was a spreader of disease. It would appear, nevertheless, that the last thing some critics are prepared to admit is "the decided infectivity of tuberculosis among animals housed under the same roof for a prolonged period."

The end of this unhappy affair is set forth in the following paragraph which appeared in the *Hamilton Advertiser* of 20th April, 1929 :—

"The District Clerk stated that the final stage of the litigation between Mr. Ballantyne, of Eastwood Farm, Lesmahagow, and the District Committee had now been reached, as he had enrolled the action which had been pending in the Sheriff Court, and had obtained decree of absolvitor for the District Committee and Mr. Weir, with expenses to the District Committee as between agent and client, and Mr. Weir on the ordinary scale. This was the end of an unfortunate incident, and while one felt sympathy with Mr. Ballantyne that he should have been the victim of erroneous advice, the only remaining regrettable feature was, now that it had been clearly established that their officials were right, no apology had been offered for the great trouble and worry which had been caused them. Mr. Weir was a young man at the beginning of his professional career, and this

action might have injured his career for all time, but Mr. Begg's opinions had been justified by the facts as ascertained."

General Remarks.

If the views we have expressed in Appendix I regarding the "Incubation of tuberculous infection and the development of the capacity to react" to tuberculin are as well-founded as we believe them to be, it is evident that the *danger period* for a graded tuberculin-tested herd that has shown reactors in the earlier days lies in the first change from a six-monthly to a yearly test.

Our records of graded herds during their period of building up with bought-in cows conclusively show the unreliability of the majority of animals from doubtful sources that have just passed the tuberculin test and indicate the virtue of maintaining a six-monthly test to intercept and remove any reactor that might at any time yield infection to her neighbours.

Our considered opinion is that the Order should be amended to provide that no herd should be put on a yearly test until at three or four successive testings no reactor has been disclosed.

The possibility of an animal which has received a very small initial dose of tuberculous infection taking upwards of a year to incubate the capacity to react to the tuberculin tests is not remote in our view, and we have endeavoured to show that the numerous disappointments met with in the experience of veterinary surgeons all over the country in regard to animals carrying non-reactor certificates depend to a great extent on this hitherto unconsidered factor.

I repeat two statements made in my last Report, viz. :—

First.—The owner of a tubercle-free herd, who avoids the very appearance of evil, need never have a reactor, but our experience has shown that tuberculosis is too cunning for the maladroit.

Second.—Fortunately, the most experienced owners (of our graded herds) take no advantage of the permission hitherto granted by the County Authorities in Lanarkshire to receive into graded herds animals that have merely passed the tuberculin tests, whatever exposure they may have had to infection, and confine any purchases they make to animals out of a safe graded herd.

But for the exercise of this wise discretion, they might have experienced results akin to those at Eastwood.

The following tables show the figures relative to the work done during 1928, viz. :—

TABLE I.

STATEMENT SHOWING THE NUMBER OF HERDS INSPECTED AND THE
NUMBER OF COWS EXAMINED DURING THE YEAR 1928.

	Upper Ward.	Middle Ward.	Lower Ward.	Total.
Herds inspected, ...	776	943	108	1,827
Cows examined, ...	13,816	19,484	2,519	35,819

TABLE II.

STATEMENT SHOWING THE NUMBER OF COWS FOUND TO HAVE
ABNORMAL CONDITIONS OF THE UDDER.

	Upper Ward.	Middle Ward.	Lower Ward.	Total.
Tuberculosis, ...	24	33	4	61
Suspected Tuberculosis, ...	12	20	5	37
Atrophy, ...	338	546	76	960
Mammitis, ...	28	48	8	84
Induration (non-tubercular), ...	107	116	17	240
Eruptions on Teats, ...	69	66	2	137

TABLE III.

STATEMENT SHOWING THE NUMBER OF MILK SAMPLES TAKEN
AND THE RESULTS OF EXAMINATION.

	Upper Ward.	Middle Ward.	Lower Ward.	Total.
Number of samples taken, ...	170	232	37	439
Number found to contain tubercle bacilli, ...	26	34	4	†64
Number found to contain other infectious organisms, ...	31	*65	13	‡109
Number negative, ...	113	134	20	267

* 1 sample also contained tubercle bacilli.

† Taken from 61 cows.

‡ Taken from 105 cows.

TABLE IV.

*STATEMENT SHOWING THE NUMBER OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

District.	Tuberculosis of the Udder.			Tuberculous Emaciation.			Chronic Cough, &c.			Totals.
	Total No.	Found on Herd		Total No.	Found on Herd		Total No.	Found on Herd		
		Inspection.	No.		Inspection.	No.		Inspection.	No.	
Upper Ward,	26	13	50	15	1	6·7	46	4	8·7	87
Middle Ward,	31	23	74·2	23	2	8·7	94	24	25·5	148
Lower Ward,	4	3	75	5	3	60	12	8	66·7	21
Totals,	61	39	66·4	43	6	25·1	152	36	33·6	256

* See Map (Appendix II).

TABLE V.

STATEMENT SHOWING NUMBER OF CASES, BOTH NEGATIVE AND POSITIVE, REPORTED UNDER THE TUBERCULOSIS ORDER, OR DETECTED DURING THE ROUTINE INSPECTION OF DAIRY HERDS.

Owner.		Private Veterinary Surgeons.		Veterinary Inspectors of other Local Authorities.		Detected by County Veterinary Inspector.		Totals.	
Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
142	128	30	18	3	4	81	60	256	210

Contraventions of the Tuberculosis Order of 1925.

14 contraventions of the Tuberculosis Order of 1925 were reported to the Executive Committee of the County Council, and in 12 cases prosecutions were instituted, letters of warning being addressed to the offenders in the other cases.

In 5 cases fines, amounting to £21, were imposed, and in one case the accused was admonished. In the remaining 8 cases it was found necessary to drop proceedings.

Burghs of Biggar and Lanark.

In the Burgh of Lanark 6 herds, comprising 39 cows, and in the Burgh of Biggar 1 herd, comprising 2 cows, were examined. In no case did we find any evidence of tuberculosis of the udder, nor did our inspections reveal any case amenable to the Tuberculosis Order.

I have the honour to be,

MY LORDS AND GENTLEMEN,

Your obedient Servant,

HUGH BEGG, F.R.C.V.S.,

County and District Veterinary Inspector.

APPENDIX I.

I.—*The Incubation of Tuberculous Infection, and the Development of the Capacity to React.*

II.—*Remarks on the Ophthalmic Test.*

III.—*The Doubtful Reactor.*

By HUGH BEGG, F.R.C.V.S., and JOHN WEIR, M.R.C.V.S., D.V.S.M.,
Veterinary Department, County Offices, Hamilton.

I. THE INCUBATION OF TUBERCULOUS INFECTION AND THE DEVELOPMENT OF THE CAPACITY TO REACT.

How soon after the initial exposure to and contraction of tuberculous infection may we expect bovine animals of different ages to react when submitted to one or other of the tuberculin tests?

It may be boldly stated that the recent infection of an animal with tuberculosis is not detectable by the use of tuberculin, and we have been tempted to write this article because experience has led us to believe that the actual incubative period is in many cases longer than will be generally admitted. Indeed, this question is more intricate and involved than would at first appear. The length of time that elapses before an infected animal displays the capacity to react is doubtless inconstant, and presumably depends on many factors, *e.g.*, the amount of the initial dose of infection; the manner and venue of its introduction; whether the dose is frequently repeated; the age of the animal; its natural susceptibility or resistance to infection; the type and virulence of the bacilli at work, &c.

Few things are more disturbing to a practitioner, if he be not fully alive to the snag that lies hidden in what might be called "this period of latency or incubation," and has not, therefore, apprised his client of the possibilities of the situation, than to find that animals he has certified as non-reactors have failed abjectly to the subsequent test of someone else, applied a few weeks, a few months, or longer, after the animals have changed hands. A considerable correspondence with practitioners, far and near, on their disconcerting experiences in this connection would indicate that the significance of this latent period of "delayed capacity to react" has not been much suspected or generally recognised. For several years we have declared our belief in this precept, and quoted, on opportunity, numerous examples in proof thereof, culled from the work we do in the Graded Herds in this

County. Our aversion to the introduction into a tubercle-free herd of an animal that has been exposed to infection, though it has successfully stood a double test, applied by a qualified practitioner, is well known in these parts. Nevertheless, the declaration of the truth as we see it has begotten considerable criticism, appeals have been received, misrepresentations have been made, and it has been suggested that we believe that private practitioners do not apply the tuberculin tests properly. It is unnecessary to state the foolishness of such a suggestion regarding an operation so simple in the hands of any qualified man. Such cases would carry a different complexion if the certificates accompanying the animals intended for Graded Herds included a guarantee of some reliability that the animals had not been exposed to infection, or a note sufficiently descriptive of their history and origin to enable judgment.

Repeatedly, when cows, much desired on the score of breeding, have been brought to Graded Herds accompanied by duly certified charts, the purchasers have been prevailed on to put them in isolation when the quality of the transferrer herd has been in any doubt. In most cases, when coming from suspected sources, they have gone down on the first prescribed test, applied in from two to four months, but whenever such an animal has stood the test successfully at the end of that limited time, we have not trusted the result of our own test, preferring to keep the animal in continued isolation against a later test.

The first case of special enlightenment we met with was a well-bred cow, duly certified when she came, that passed our first double test after three months' isolation, and our second after $5\frac{1}{2}$ months, when we decided to risk her in the herd. Fully ten months after her arrival she was tested along with the whole herd of 59 animals and was the only reactor. Whether she would have reacted at the 7th, 8th, or 9th month is, of course, a moot point. As this cow came as one of a pair, and as her neighbour failed at the first test, after three months' isolation, it might be reasoned that her exposure to infection was thereby continued, but it will be generally conceded that there cannot be much danger from a neighbour that had so recently graduated as a reactor. We have adopted many expedients to gain experience on which to base opinions on this problem, and are not the least convinced that even so long a period as one year is the limit of time within which, if a cow fails to react, she may be safely admitted into immaculate company.

Recently, in a herd of 44 cows, two animals that always stood together reacted fully to the intradermal and ophthalmic tests, there being only one other reactor in the byre standing some distance away. These two cows came together as heifers, certified as non-reactors, from a herd in a southern County where we are told all the animals were not tested, and it was singular that they should react together after the same period of time. But on looking up the records, we were astonished to find that they had passed the prescribed tests not less than five times at our hands, and had not even any mark, indicating doubt, against them.

Such an extreme happening forces one to wonder where and when they got infection, and though it is perhaps incompetent at this stage to conclude they had been incubating all the time, especially as each testing of the herd revealed one or two reactors, the possibilities inherent to the case must be kept in view. We could cite many other less extreme cases in which eventual reaction, when the danger period was deemed past, re-taught the old lesson.

THE VALUE OF THE INTRADERMAL TEST.

With the advent of the Intradermal Test, supreme as it is over the faking tactics of those who tuberculinize animals beyond the point of sensitiveness to the subcutaneous test, the call for controlling tuberculin has lost part of its force.

It would perhaps be difficult to estimate what percentage of pedigreed animals that, having successfully stood the tuberculin (subcutaneous) test in this transference country, and subsequently failed in that of the transferee across the seas, did pass because they were faked by designing men, and then failed when the insensitive stage had passed. It seems to us that a full understanding of this "period of incubation" may very well supply a reason for the majority of cases, and thus lessen considerably the stigma so commonly attached to some exporters. In a recent article by Professor Gaiger practical point is given to the issue, and we are constrained to believe that overseas buyers, requiring tubercle-free animals, are in a position analogous to owners of tubercle-free herds in this country, and must endeavour to get animals that have not only passed a sufficient test, but have not been exposed to infection.

We are aware that through loose interpretation or perhaps misinterpretation of the Milk (Special Designations) Order (Scotland), 1923 (and we believe the same has obtained in England), cows coming

with a veterinary certificate of having passed the double tests of the Order have been allowed direct access into Graded Herds, to their ultimate undoing, for this cannot be done with impunity. It is not uncommon that a dealer has to supply one or two cows that have recently passed the tuberculin test, to fill orders of different kinds *e.g.*, to go to a breeder of valuable stock for the rearing of calves, or it may be to fill a stall or two in a graded tubercle-free herd. With that object in view, he may get ten or more cows tested, and then send on, in the best of faith, one or two that have passed the test, although they have been exposed to and have probably contracted infection that will be disclosed later. Such animals may be safer than definite reactors, for either purpose, for the time being, but in the majority of cases they impose betrayal on the purchaser, and are all the more dangerous because they are deemed safe.

The proprietors of a large cattle auction mart in this County, with a commendable desire to meet the wishes of their clients and to give facilities for the sale of tubercle-free animals by public auction, have set apart for a considerable time a place of isolation for them prior to sale. In each case the cow is accompanied by a veterinary certificate. Some of the animals have come from Graded Herds where the chance of catching infection is entirely, or almost entirely, absent, and can be regarded as safe to buy; but, unfortunately, others have simply passed a recent test and many of them are predestined to disappoint their purchasers. Between these two classes of cows there is a distinction with a difference that is as yet only fully known to those who, from experience, have gathered wisdom.

Safety lies in putting the question privately or publicly: "Is this cow out of a herd of tubercle-free animals, graded or otherwise?"

HOW ARE DAIRY BYRES TO BE FILLED?

It may be asked what is to be done in the establishment or maintenance of tubercle-free herds if the purchase of such cows is so fraught with danger? The problem is admittedly a difficult one in all localities where surplus animals are not available from—

- (a) Graded herds;
- (b) Tubercle-free (ungraded) herds; or
- (c) Other breeding herds with a known reputation for freedom from tuberculosis.

The chief desideratum for all Certified and Grade A (TT) herds is that they should be so fully self-supporting that they will have

sufficient milch stock for their milk contracts and the rearing of calves at all times, and perhaps a surplus cow for sale on occasion. The maintenance of a tubercle-free Graded Herd where no breeding and rearing is possible is a philanthropist's job, and could only be attempted by others assured of a higher price than is usually obtainable for all produce, if an adverse balance is to be avoided. In carrying out propaganda for the increase of tubercle-free Graded Herds in any district it is only worth while giving encouragement to the owners of breeding herds that have a fair prospect of being independent of other supplies. Let those who have had experience of efforts made to build up or maintain such herds by the purchase every now and again, even with some discrimination, of animals that carry a recent tuberculin test certificate, cast their minds back, and we feel certain that in most cases they will observe a considerable trail of failures that has served to stagger professional opinion that was almost sacred, daunt the courage of ambitious owners and beget their caustic criticism, not only on the reliability of the tuberculin test, but, in some ill-advised cases, of the professional man himself.

It is from such experience that our conviction has sprung, and if we are right in believing as we do that the period of incubation is in some cases of considerable length, we cannot do otherwise than continue to declare the issue "that the direct introduction into a tubercle-free herd of a non-reactor that has been exposed to infection is decidedly dangerous." If our contention appeals to members of the profession engaged in this work, it is for them to judge whether they should act accordingly. Scores of cows certified as having passed the tuberculin test have subsequently reacted in the absence of any post-certificate exposure to infection, but we have yet to meet the animal that, having failed to the combined double intradermal and ophthalmic tests, has ever afterwards passed a reliable tuberculin test, and he would be insanely bold who would regard such a cow as free of tuberculous infection because she had subsequently given a doubtful thermal reaction to the subcutaneous test. The result of that test is profoundly prejudiced for a time by the prior use of concentrated tuberculin.

II. THE OPHTHALMIC TEST.

Our belief is that there is no test known, and there is no way of applying any known test, to enable us to mark the subsequent reactor before or until the quality of sensitiveness to tuberculin, which is the indication of infection, has been established systemically by the

progressive action of the infection itself present in the animal. When this has come to pass, her detection should be equally easy by every veterinary surgeon, who exercises the care required in the use of tuberculin.

Subsequent research may prove us wrong, but we incline to the belief that the simple and often derided ophthalmic test repeatedly applied at intervals up to six times in the same eye will produce a definite reaction and enable a definite decision earlier in the incubating cow than any other test.

If this be true, it is perhaps because the ophthalmic test is applied to more highly organised structure than the other tests. It is conceivable that the existence of the specific toxic product induced by the lytic action of a lysin of tuberculous endotoxin on the tuberculin used—the acknowledged factor in all reactions, both local and general—should be susceptible of the earliest detection when the test is applied to the most sensitive tissues available.

An obvious criticism of this conjecture lies in the known failure of the ophthalmic test, *as generally applied*, to produce a reaction in about one-third of all known reactors to other tests, but, as already stated, it is only by properly sensitizing the eye using repeated instillation that the best results can be got from the ophthalmic test. We frankly admit that as generally applied, using a sensitizing and diagnostic instillation only, it fails to detect 34 per cent. or thereby of reactors, but our methods are perhaps more to blame than we wot of for its seeming failures. When it indicates reaction, the ophthalmic test often does so in a third of the time of any other test, and at the moment we incline to the belief that it has also an early detective capacity in the case of the latent reactor. We have seen a full-blown reaction to a single instillation of an eye admittedly sensitized by former negative tests, in $2\frac{1}{2}$ hours, when the commencement of reaction to the subcutaneous test, applied at the same time, only began between the 13th and 14th hour. The animal was the only reactor in the herd for over two years, and the *post-mortem* examination had to be carefully done to discover four small tuberculous lesions. We have experienced so much of this early detective quality in the ophthalmic test, that we presume and there is evidence that others have met with similar results.

In a recent case, destined perhaps to become historic (as an example of how speedily infection may spread under a single roof—a case we hope to report later), of 32 animals, out of 33 which reacted to the intradermal test, no reaction to the ophthalmic test was noted

in one-third of the animals, but when they were similarly tested nearly eight months later we got 100 per cent. reactions to the ophthalmic as well as to the intradermal test. In one case, the animal was showing a reaction to the ophthalmic test within half-an-hour of the application of the sensitizing dose. It is not unlikely that if we had on the first occasion repeated the instillation of the sensitized eye in the case of those animals that gave no reaction ophthalmically, we would have brought the percentage of reactors to the eye test to the level of the intradermal test at that time. While well-marked discharge enables decision, decided engorgement of four or five blood vessels on the eye, in the absence of discharge, also marks reaction—comparative examination being made of both eyes—and one gathers confidence in deciding by comparing the condition of the blood vessels in such a case with those on the eyeball of another cow with marked discharge, after wiping off the discharge. In such cases, and indeed in all suspicious cases, when one wishes to demonstrate discharge in an apparently dry eye, the animal should be seized by the near horn and the nose, and the head tilted over, to rotate it on the eyeball, which it will be noticed maintains its straight poise. This has the effect of disclosing the presence of any discharge that may be lurking under the upper eyelid and causing it to gravitate to the inner canthus. On occasion, the seemingly dry eye of an eventual reactor will show discharge within ten minutes after instilling the eye (sensitized 48 hours before) with the second diagnostic dose. A tenable inference would be that the fluid tuberculin swilled lurking discharge into view.

Again, in the case of a cow that had come to a certified herd with a veterinary certificate, and which had been put into protective isolation, we applied the then prescribed subcutaneous and ophthalmic tests at the end of three months, and within 12 hours there was a maximum ophthalmic reaction in the untreated right eye, while there was none at all in the left eye (tested perhaps for the first time), and though there was no thermal reaction to the subcutaneous test, we concluded that the right eye had been tested on a former occasion, that its latent sensitiveness was now activated by the full dose of tuberculin used, and that the cow was a reactor, which had been heavily tuberculinised before sale. Obviously the tell-tale ophthalmic test is not suitable for the purpose of him who uses tuberculin for an ulterior end. If any alteration is to be made in the "prescribed test" of the Milk (Special Designations) Orders by limiting it to a

test admittedly so reliable as the intradermal, we will be discarding, in the ophthalmic test, one that carries very considerable detective power. We would be sorry to give it up, except on the score that it produces a very sore-looking eye in many reactors.

III. THE DOUBTFUL REACTOR.

Recently we heard a responsible veterinary surgeon, when acting in an advisory capacity, declare that he regarded all doubtful reactors as non-reactors. Our view is entirely opposed to this, and we at once put such animals into strict isolation or advise their sale. Moreover, because our experience has been that they almost invariably react fully to a later test, we now regard as positive certain classes of cases that in earlier days we put down as doubtful only.

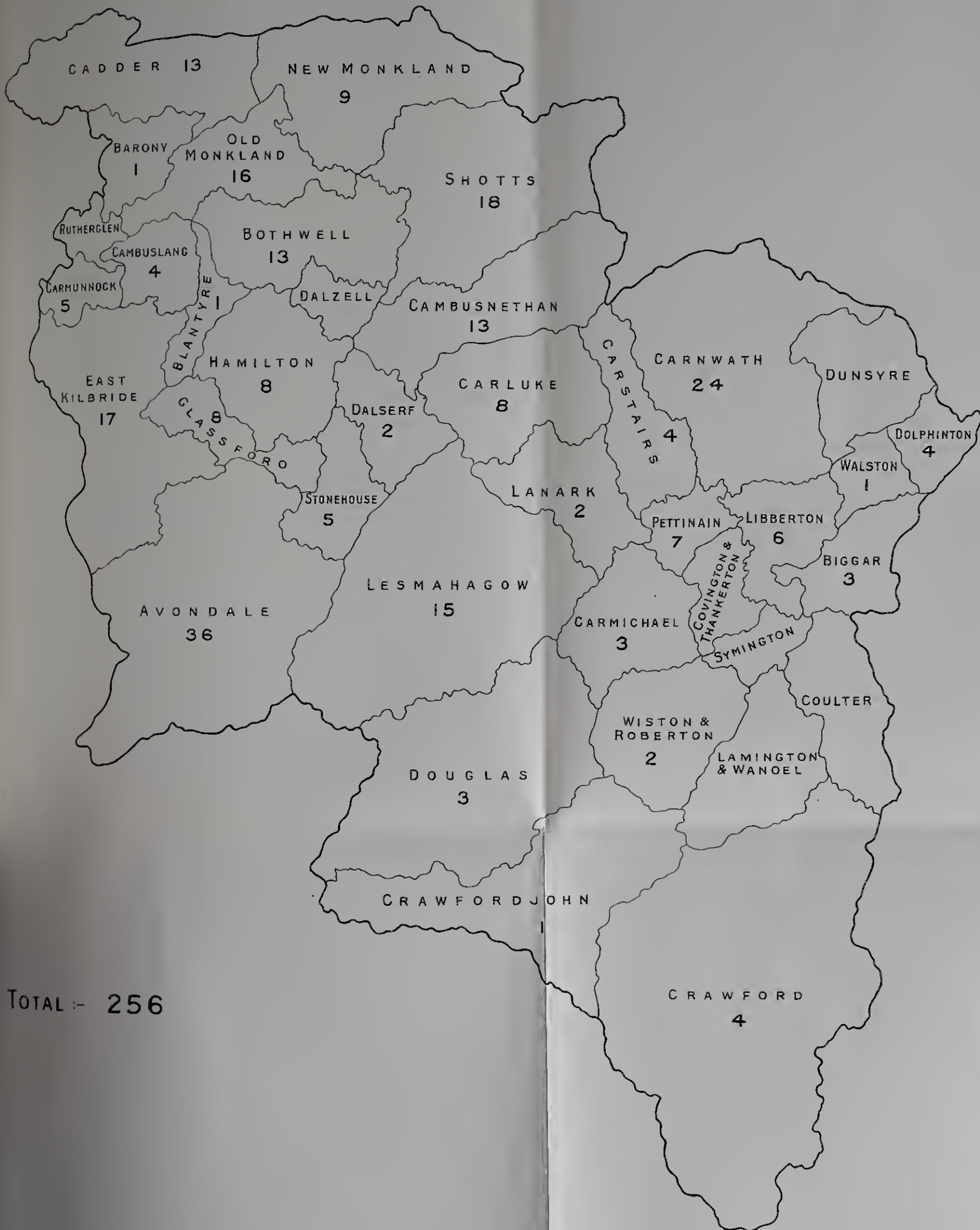
Is there then a measurable period of time between the negative and positive phases of reaction to tuberculin in the incubating animal when the saturation of the humours of the infected subject with the lysin of the tuberculous endotoxin referred to is too incomplete to yield unequivocal reaction to tuberculin and only sufficient to beget a degree of sensitiveness compelling doubt in the result? We believe there is such an interregnum, not just because we have on record many instances of former non-reactors which subsequently afforded a doubtful and later a complete reaction to the usual tests, but because it is inconceivable that a state of negativeness in this regard could change suddenly or within a few days to undoubted positiveness. It should be stated that in the days of our earlier use of the intradermal test, when we shaved or clipped the seat of inoculation we did meet with a definite number of odd animals exhibiting an elliptical, diffuse, and slightly tender swelling, 24 to 48 hours after the first dose. As several of these were members of herds known to be tubercle-free, they were at once re-tested without removing the hair, and in all cases the result was negative. In most of them it could be demonstrated that the edge of the razor or clipper had abraded the skin and produced a weal that closely simulated a small reaction. Because of this experience we have entirely discarded shaving and only use the clippers when the hair is long enough to interfere with interpretation of results, or if the owner when asked expresses a desire for clipping. Our calculated view is that provided the skin looks clean, it should receive no treatment before or after the application of the test, if we would avoid prejudicing its result.

It is well known that the degree of reaction to any known test is no measure of the extent to which lesions of tuberculosis are present in the tested animal. In animals killed after reaction to two tests, simultaneously applied, we have on occasion utterly failed to determine the positive existence of any lesion of tuberculosis, although we had recourse to guinea-pig inoculation with scrapings taken from such tissues as showed the slightest departure from normal. In other strong reactors one or more small lesions were only found after diligent search, and thus it is evident that a sufficient saturation with the lysin that enables reaction to tuberculin can be elaborated from foci (plentiful it may be) which are invisible to the naked eye or of which a few are just discoverable. It is generally believed that sensitiveness to tuberculin is in some instances lost in advanced cases of tuberculosis. It is obvious that implicit faith cannot be placed on a thermal test applied to an animal whose daily temperature varies within wide limits, even though early thermometrical observations are made, but we are by no means convinced that such an animal, if not at the point of death, would fail to react intradermally, intrapalpebrally, or ophthalmically.

APPENDIX II

TUBERCULOSIS ORDER, 1925.

MAP OF THE COUNTY OF LANARK SHOWING THE PARISHES, AND ILLUSTRATING BY FIGURES THE NUMBER OF ANIMALS TAKEN FROM EACH PARISH AND SLAUGHTERED UNDER THE ORDER DURING 1928.



COUNTY OF LANARK

DISTRICT OF THE UPPER WARD.

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1928

Medical Officer of Health,	-	-	County Offices, Hamilton.
Asst. Medical Officer of Health,		}	District Offices, Lanark.
Sanitary Inspector,	-		

STAFF.

Medical Officer of Health.

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

Asst. M.O.H. and Tuberculosis Officer

ALEXANDER FRASER, M.D., D.P.H.

Sanitary Inspector.

WILLIAM PATERSON.

Asst. Sanitary Inspectors.

JOHN INNES

(Certificated Meat Inspector).

ROBERT FRASER.

Nurse Health Visitors, 3.

District Hospital, Roadmeetings, Carlisle.

Resident Physician,	-	-	-	-	Dr. EFFIE S. STEPHEN
Matron,	-	-	-	-	Miss I. RAMSAY

Meat Inspector.

JOHN JARVIE, M.R.C.V.S.

Slaughter-house Superintendents, 4.

COUNTY OF LANARK

DISTRICT OF THE UPPER WARD

(AREA, 326,803 ACRES).

Report by the Medical Officer of Health

FOR THE YEAR 1928.

Vital Statistics.

The **Population**, as estimated for the year 1928, was 48,200. The population of the various parishes is given in Table B.

The number of *inhabited houses*, according to the Valuation Roll, 1928-29, amounts to 10,193, while there were 458 *uninhabited houses*.

Statistical Tables.—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods 1891-1900, 1901-10, and 1911-20, as well as those for the years 1921-28.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the District, after correction for transfers, numbered 888—males, 453; females, 435—giving a birth-rate of 18·5 per 1,000 of the population. The number of births is the lowest yet recorded, while the birth-rate for the year is also the lowest recorded.

The number of *illegitimate births* registered in the District, after correction for transfers, numbered 74—males, 39; females, 35—giving an illegitimate birth-rate of 8·4 per 100 births.

The **Deaths** registered in the District, after correction for transfers, amounting to **517**, giving a death-rate of **10·7** per 1,000 of the population.

The deaths of *infants under 1 year* numbered **61**, giving an infantile mortality rate of **68·7** per 1,000 births. A slight decrease in the deaths is recorded, 61 as against 64 during the preceding year. A detailed statement of the infant deaths is given in Table F under the heading of Maternity and Child Welfare.

The number of births exceeded the number of deaths by 371, constituting the *natural increase of the population*.

Infectious Diseases.—The deaths due to notifiable infectious diseases numbered 74, as compared with 64 during the previous year, and were made up as follows:—Scarlet fever, 4; diphtheria, 1; erysipelas, 2; tuberculosis, 29 (pulmonary, 20; abdominal, 3; meningeal, 4; other forms, 2; pneumonia (all forms), 38.

The deaths due to non-notifiable diseases numbered 15, as compared with 10 during the previous year. Measles, 5; whooping-cough, 6; diarrhoea (under 2 years), 4.

Respiratory Diseases.—During the year the deaths (including pulmonary tuberculosis) numbered 108, being a decrease of 13 as compared with the previous year, and were as follows:—Pneumonia (all forms), 38; bronchitis, 25; influenza, 10; pulmonary tuberculosis, 20; and other respiratory diseases, 15. The following statement shows the deaths from respiratory diseases according to the months:—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Pneumonia, -	6	3	5	3	3	7	2	1	1	4	2	1	38
Bronchitis, -	1	2	5	1	3	3	—	2	3	4	—	1	25
Influenza, -	—	2	3	1	1	—	—	—	1	—	1	1	10
Pulmonary Tuberculosis, -	1	—	3	3	—	—	—	—	2	2	4	5	20
Other Respiratory Diseases, -	3	1	1	1	—	1	—	—	1	1	—	6	15
	11	8	17	9	7	11	2	3	8	11	7	14	108

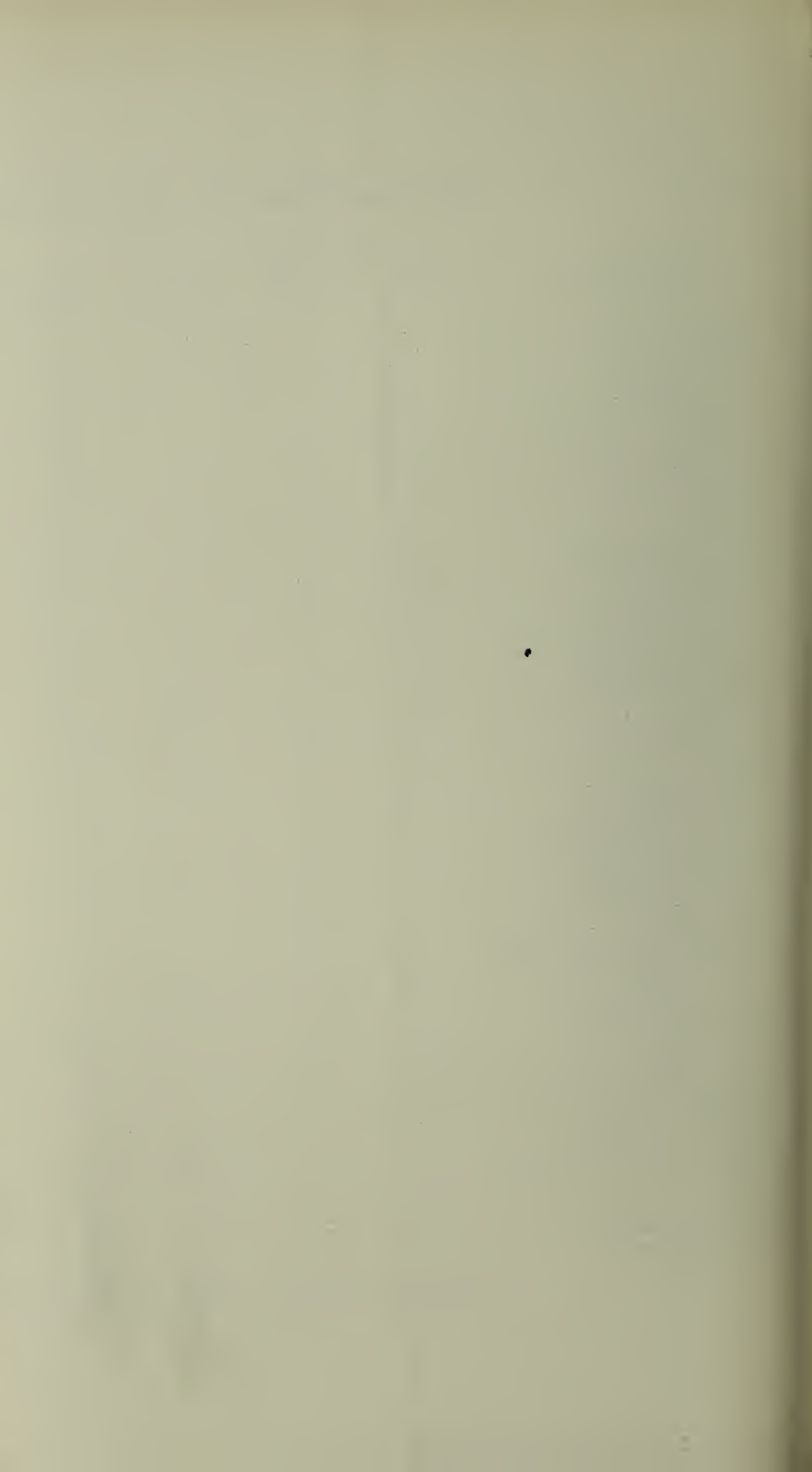
The age periods of these deaths are to be found in Table C.

TABLE B.—UPPER WARD.—Year 1928.—Population, Births, and Deaths in each Registration District, with Deaths classified according to cause.

[illegible]

TABLE C.—UPPER WARD.—Year 1928.—Deaths classified according to Cause and Age Periods.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																	
					Weeks.				Months.				Years.									
					-1	1-2	2-3	3-4	1-3	3-6	6-9	9-12	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-
Typhoid Fever, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles,	4	1	...	5	...	...	...	...	...	...	...	...	2	3	...	...	...	...	...	...	...	...
Scarlet Fever,	4	...	...	4	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	1	...
Whooping-Cough,	6	...	...	6	...	...	...	...	...	2	...	...	...	3	1	...	...	...	...	...	...	...
Diphtheria,	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Influenza,	10	...	...	10	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Cerebro-Spinal Fever, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	4	1
Erysipelas,	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis,	17	5	2	20	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	1	...	...
Meningeal,	2	2	...	4	...	...	...	...	...	...	1	...	...	3	...	...	...	6	4	...	3	...
Abdominal,	3	1	1	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
Other,	1	1	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Septicæmia and Pyæmia,	3	4	...	7	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Rhenumatic Fever,	2	...	...	2	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1	...	1	1
Malignant Diseases,	42	7	2	47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Meningitis (simple),	2	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	2	7	11	17	10
Cerebral Hæmorrhage,	42	1	3	40	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...
Encephalitis Lethargica, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	6	17	11
Other Nervous Diseases,	12	1	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease,	72	8	6	74	...	...	...	...	...	...	...	...	...	1	1	...	1	...	3	3	1	2
Other Circulatory Diseases,	16	1	2	15	...	...	...	...	...	...	...	...	...	1	1	1	2	4	7	12	26	18
Bronchitis,	25	2	2	25	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	4	7	2
Pneumonia (all forms),	28	10	...	38	...	...	...	...	...	...	1	...	...	1	...	...	...	1	...	3	7	13
Other Respiratory Diseases,	13	3	1	15	...	...	...	...	...	...	5	1	2	2	5	1	1	1	...	2	6	8
Diabetes,	6	...	...	6	...	...	...	...	...	...	...	...	...	2	1	...	...	...	2	2	2	6
Pernicious Anaemia	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
Dis. of Ductless Glands, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
Appendicitis and Typhlitis,	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver Diseases (not malign.),	3	1	...	4	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1
Other Digestive Diseases,	13	1	3	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...
Nephritis and Bright's Disease,	8	3	1	10	...	...	...	...	...	...	...	...	...	...	1	1	1	...	2	3	2	1
Dis. of Gen.-urin system,	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	5	1	...
Dis. of Female Gen. organs, . . . . .	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...
Puerperal Sepsis,	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Other Dis. & Acc. of Pregnancy,	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Congenital Hydrocephalus, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...
Heart,	2	...	...	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Malformations,	3	...	...	3	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Infantile Convulsions, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa (under 2 years),	3	1	...	4	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Premature Birth,	10	3	...	13	10	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, & Marasmus,	16	1	...	17	8	2	1	1	4	...	...	...	...	1	...	...	...	...	...	...	...	...
Atelectasis, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation—Overlying, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. peculiar to early Infancy,	4	...	...	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis, . . . . .	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Violence,	14	6	4	16	...	...	...	...	...	...	...	...	...	2	2	...	1	2	2	1	3	1
Suicide,	3	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Other Defined Diseases,	66	12	4	74	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Ill-Defined Diseases, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	4	6	17
Totals,	462	88	33	517	22	4	4	1	15	6	5	4	27	13	8	13	18	26	36	80	119	116



PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health, and Group 2 not compulsorily notifiable diseases. The diseases included in these groups are as follows:—

GROUP I.

	August, 1906	1st August, 1912
Smallpox	Cerebro-spinal Meningitis	Pulmonary Tuberculosis
Diphtheria		1st July, 1914
Scarlet Fever	24th October, 1912	All forms of Tuberculosis
Typhus Fever	Acute Poliomyelitis	1st November, 1918
Typhoid Fever	Tetanus	Ophthalmia Neonatorum
Puerperal Fever	Anthrax	1st August, 1919
Erysipelas	Glanders	Malaria
	Actinomycosis	Dysentery
		Trench Fever
		Acute Influenzal-Pneumonia
		Acute Primary do.
		26th December, 1924
		Infective Jaundice
		1st January, 1926
		Poliomyelitis (Infantile Paralysis)
		Polio-encephalitis
		Encephalitis Lethargica
		26th March, 1927
		Chickenpox.

GROUP II.

*Measles	Mumps	Ringworm
German Measles		Scabies
*Whooping-Cough		

* Primary cases of those diseases under five years of age have been made notifiable under the Maternity and Child Welfare Scheme.

The undernoted statistics show the deaths and death-rates per thousand of the population for the past nine years :—

Year.	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respirator Diseases.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1920	34	75	22	48	5	11	27	6	13	28
1921	33	71	27	58	4	9	20	43	10	2
1922	54	115	30	64	20	43	21	45	19	41
1923	28	58	19	39	2	4	33	69	14	29
1924	40	82	46	95	27	55	20	41	20	41
1925	29	60	15	31	9	18	22	45	20	41
1926	37	76	28	58	12	24	21	43	16	33
1927	21	44	33	68	21	43	28	58	18	37
1928	38	79	25	52	10	21	20	42	15	32

Malignant Diseases.—The deaths falling under this heading numbered 47—males, 25; females, 22—thus showing a decrease in the deaths from malignant disease when compared with the figure of 56 for the previous year, a slight preponderance of male deaths over females. The age periods at death will be found in Table C.

The type of disease according to certified cause of death was :—Carcinoma or cancer, 38; sarcoma, 4; epithelioma, 2; malignant disease, 3. The location of the disease was as follows :—Some portion of the gastro-intestinal tract, 21 cases; the genito-urinary tract, 7; liver, 3; breast, 4; lung, 2; bone, 3; face, 1; neck, 1; pancreas, 1; throat, 1; tongue, 1; retroperitoneal, 1; abdominal wall, 1.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants under 1 year.	
					Deaths.	Death-rate.
Average. 1891 to 1900	1,222	31.6	606	15.6	116	95.5
Average. 1901 to 1910	1,209	28.9	552	13.2	104	86.5
Average. 1911 to 1920	1,143	25.9	561	12.73	91	80.23
1921	1,225	26.23	541	11.58	76	62.04
1922	1,097	23.40	584	12.45	101	92.06
1923	1,144	23.9	512	10.7	74	64.6
1924	1,119	23.1	581	12.0	86	76.7
1925	1,041	21.5	488	10.1	67	64.3
1926	999	20.7	498	10.3	52	52
1927	920	19.2	522	10.8	64	69.5
1928	888	18.5	517	10.7	61	68.7

Table D shows the number of cases of notifiable infectious disease occurring in each parish, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All outbreaks were carefully inquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease. Where the patient was in any way connected with a dairy farm special precautions were taken to discover the source of infection, and, in all cases, prompt removal to hospital was obtained.

The following tabular statement shows the housing in relation to notification of infectious disease :—

Disease.	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.	6 apts. and over	Inst.	Total Cases.
Scarlet Fever, - - -	16	97	58	23	11	14	49	268
Diphtheria, - - -	7	36	23	7	4	7	4	88
Acute Poliomyelitis, - -	1	1	—	—	—	1	—	3
Puerperal Fever, - - -	1	—	1	—	1	—	—	3
Ophthalmia Neonatorum, -	—	2	—	—	—	—	—	2
Erysipelas, - - -	1	12	7	4	1	5	—	30
Acute Primary Pneumonia, -	3	41	10	4	2	2	4	66
Influenzal Pneumonia, - -	—	1	1	—	—	—	—	2
Chickenpox, - - -	16	42	17	3	6	2	—	86
Tetanus, - - -	—	—	1	1	—	—	—	2
Pulmonary Tuberculosis, -	2	11	9	4	2	2	1	31
Non-Pulmonary Tuberculosis, -	8	14	7	—	—	—	2	31

TABLE D.—Number of Cases of Infectious Sickness recognised in each Parish during 1928.

PARISH.	Scarlet Fever.	Diphtheria.	Erysipelas.	Acute Primary Pneumonia.	Influenzal-Pneumonia.	Chickenpox.	Puerperal Fever.	Ophthalmia Neonatorum.	Acute Poliomyelitis.	Tetanus.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Total.
Biggar, - - -	1	1	—	—	—	—	—	1	—	—	—	—	3
Barlake, - - -	65	14	6	7	—	19	—	—	—	—	5	5	121
Barmichael, - - -	3	4	—	2	1	1	1	—	—	—	1	—	13
Barnwath, - - -	9	7	1	11	—	—	—	—	2	—	3	7	40
Barstairs, - - -	8	6	5	6	—	15	—	1	—	—	2	1	44
Bovington, - - -	—	—	2	—	—	—	—	—	—	—	—	—	2
Crawford, - - -	14	1	—	—	—	—	—	—	—	—	1	2	18
Crawfordjohn, - - -	2	—	—	—	—	—	—	—	—	—	2	—	4
Coulter, - - -	—	2	—	1	—	—	—	—	—	—	—	—	3
Dolphinton, - - -	—	—	—	—	—	—	—	—	—	—	—	—	—
Douglas, - - -	10	3	1	1	—	1	1	—	—	—	1	2	20
Dunsyre, - - -	—	—	1	1	—	2	—	—	—	—	—	—	4
Lamington, - - -	1	1	—	—	—	—	—	—	—	—	—	—	2
Lanark, - - -	62	6	—	9	1	1	—	—	—	—	2	4	85
Lesmahagow, - - -	93	43	14	27	—	47	1	—	1	1	10	9	246
Libberton, - - -	—	—	—	1	—	—	—	—	—	—	1	—	2
Pettinain, - - -	—	—	—	—	—	—	—	—	—	—	—	—	—
Symington, - - -	—	—	—	—	—	—	—	—	—	1	1	—	2
Walston, - - -	—	—	—	—	—	—	—	—	—	—	1	1	2
Wiston, - - -	—	—	—	—	—	—	—	—	—	—	—	—	—
Total, -	268	88	30	66	2	86	3	2	3	2	30	31	611

Smallpox.

No case was reported during the year.

Vaccination (Scotland) Act, 1907.—The returns received from the Registrars showing the number of statutory declarations of conscientious objection to vaccination are tabulated here according to registration district.

	Year 1925.	Year 1926.	Year 1927.	Year 1928.
Biggar, - - -	—	1	—	—
Carluke, - - -	108	81	82	91
Carmichael, - - -	25	24	26	18
Carnwath, - - -	11	10	7	11
Forth, - - -	47	46	53	44
Tarbrax, - - -	24	19	19	7
Carstairs, - - -	6	7	5	8
Covington, - - -	3	—	—	1
Crawford, - - -	4	4	6	2
Leadhills, - - -	3	4	5	3
Crawfordjohn, - - -	1	2	2	2
Coulter, - - -	—	—	—	—
Dolphinton, - - -	—	—	—	—
Douglas, - - -	34	25	27	31
Dunsyre, - - -	—	1	1	—
Lamington, - - -	—	1	1	1
Lanark, - - -	2	11	8	6
Lesmahagow, - - -	88	55	46	54
Kirkfieldbank, - - -	7	7	—	9
Coalburn, - - -	34	26	20	20
Libberton, - - -	—	1	1	1
Pettinain, - - -	—	—	1	1
Symington, - - -	—	—	—	2
Walston, - - -	—	1	—	1
Wiston, - - -	—	1	—	—
	397	327	310	313

Diphtheria.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average,					
1892-95,	- 78	14	17.9	2.0	3.7
Average,					
1896-1900,	- 89	6	6.7	2.2	1.4
Average,					
1901-05,	- 66	7	10.6	1.6	1.6
Average,					
1906-10,	- 156	7	4.4	3.6	1.7
Average,					
1911-15,	- 95	8	8.4	2.1	1.8
Average,					
1916-20,	- 82	7	8.5	1.8	1.5
Average,					
1921-25,	- 78	4	5.6	1.6	1.2
1926, -	- 107	4	3.7	2.2	0.8
1927, -	- 83	4	4.8	1.7	0.8
1928, -	- 88	1	1.1	1.8	0.2

Deaths.—One death from this disease occurred during the year, being a decrease of 3 as compared with the previous year. This death was one of hæmorrhagic diphtheria.

Notifications.—The total number of notifications received during the year amounted to 88, showing an increase of 5 in comparison with the number of cases notified in the year 1927. Of the 88 cases notified, 76, or 86 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows :—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
26	12	8	3	2	1	6	5	2	9	5	9

It will be seen that the prevalence of the disease was greatest during the first quarter of the year.

The age incidence of the cases and deaths was as follows :—

Ages,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55
Cases,	—	13	22	22	18	10	1	2
Deaths,	—	—	—	1	—	—	—	—

Table D shows the number of cases notified in each parish, from which it will be seen that the greatest number was notified in the parish of Lesmahagow. The various localities are here detailed:—

Biggar Parish.—1 case.

Carlisle Parish.—Carlisle, 8; Law, 5; Stravenhouse Farm, 1.

Carmichael Parish.—Newside Farm, 4.

Carnwath Parish.—Carnwath, 3; Tarbrax, 2; Newbigging, 2.

Coulter Parish.—2.

Crawford Parish.—1.

Douglas Parish.—Douglas Castle, 1; Douglas West, 2.

Lamington Parish.—Lamington, 1.

Lanark Parish.—Bellfield, 1; New Lanark, 1; Institution, 4.

Lesmahagow Parish.—Lesmahagow, 3; Coalburn, 7; Kirkfieldbank, 2; Kirkmuirhill, 23 (1 death); Crossford, 1; Aucheneath, 3; Auldtonhill, 1; Boghead, 1; Midtown Farm, 2.

Return Cases.—No cases were counted as return cases during the year.

Dairy Farms.—7 cases (5 adults, 2 children) occurred at 3 dairy farms, and 1 case occurred at premises used for storing milk—making eight cases in all occurring at dairy premises.

Hospital.—There was one death in the District Hospital, Road-meetings, during the year.

Diphtheria Anti-toxin.—Of the 88 cases notified, 9 of these received anti-toxin from the hands of the medical practitioner before removal to hospital. Although this shows a slight improvement, it cannot be regarded as satisfactory.

In connection with the *bacteriological examination* for the presence of the diphtheria bacillus in the throat, it is very gratifying to note that the practice of swabbing the throat is becoming more prevalent, for out of the 88 notified cases, 36 positive swabs were obtained, 9 were returned as negative, while in 43 cases no swab was obtained before admission to hospital.

Scarlet Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average, 1892-95, -	299	7	2·3	7·88	1·77
Average, 1896-1900, -	326	9	2·7	8·27	2·28
Average, 1901-05, -	187	4	2·1	4·56	0·97
Average, 1906-10, -	235	3	1·2	5·5	0·70
Average, 1911-15, -	264	5	1·9	6·03	1·14
Average, 1916-20, -	156	2	1·5	3·4	0·5
Average, 1921-25, -	312	5	1·4	6·5	1·06
1926,	148	1	·6	3·0	0·2
1927, -	108	—	—	2·2	—
1928, -	268	4	1·5	5·5	·8

Deaths.—4 deaths occurred from this disease during the year—1 at home and 3 in hospital.

Notifications.—The total number of cases notified during the year amounted to 268, showing an increase of 160 in comparison with the number of cases notified during the year 1927. Of the 268 cases notified, 209, or 78 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows :—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
6	8	10	12	25	14	4	15	20	53	24	18

It will be seen that the prevalence of the disease was greatest during the last quarter of the year.

The age incidence of the cases was as follows :—

Ages.	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65
Cases, -	3	70	102	59	18	11	2	1	2

Table D shows the number of cases occurring in each parish, and it will be noted that the disease was prevalent in the most populous areas.

The following statement shows the localities in which the cases occurred :—

Biggar Parish.—Biggar, 1.

Carluke Parish.—Carluke, 54; Braidwood, 2; Law, 6; Castlehill, 2; Mayfield Farm, 1.

Carmichael Parish.—Douglas Water, 2; Sandilands, 1.

Carnwath Parish.—Carnwath, 6; Tarbrax, 1; Wilsontown, 2.

Carstairs Parish.—Carstairs Village, 5; Carstairs Junction, 3;

Crawford Parish.—Crawford, 6; Abington, 2; Elvanfoot, 4; Leadhills, 2.

Douglas Parish.—Douglas, 2; Douglas Old, 2; Douglas West, 2; Monkshead, 1; Hazelside, 1; Bremerside, 1; Gateside, 1.

Lamington Parish.—Lamington, 1.

Lanark Parish.—The Moor, 5; Smyllum, 1; New Lanark, 5; Cartland, 1; Cleghorn, 1; Institution, 49.

During the greater part of the year scarlet fever occurred in Smyllum Orphanage. The first case was notified in the month of May and removed to hospital, and enquiries made at that time failed to elicit the exact source of infection. Later, however, a case was notified showing signs of desquamation, and investigation revealed the fact that this patient along with a brother and sister had been admitted to the Orphanage about twenty days previously. It was further learned that this child had suffered from a sore throat immediately previous to his admission, though no rash had been seen. Cases kept occurring until the month of August, when the Orphanage was free for a period of three weeks. A further case was notified and several cases occurred during the following three months. The Orphanage was free from infection in the month of December. In all, 49 cases occurred during the year in this Institution, and, roughly, 30 per cent. of the cases were found to be desquamating on notification. From this fact it will be gathered that the symptoms of the disease were of a very mild character.

The age periods of the cases are as follows :—

-1	1-5	5-10	10-15	15-25	Total.
1	17	18	12	1	49

Lesmahagow Parish.—Lesmahagow, 26; Kirkmuirhill, 6; Blackwood, 2; Coalburn, 52; Hawksland, 1; Holmhead Farm, 1; Kirkfieldbank, 1; Auchenheath, 2; Dillarburn, 1, Crossford, 1.

Crawfordjohn Parish.—Overabington Farm, 2.

Return Cases.—6 cases were counted as return cases, and the interval which elapsed between the date of dismissal from hospital of the infecting cases and the onset of the illness in the return cases was taken to be six days.

Dairy Farms.—4 cases of the disease occurred (3 adults and 1 child) on three farms. Immediate removal of the cases to hospital was obtained in all instances, and, after the usual examination of the inmates and disinfection of the premises, the milk supply was continued.

Enteric Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average, 1892-95,	46·2	5·7	12·4	1·2	1·5
Average, 1896-1900, -	27·2	4·8	17·6	0·6	1·2
Average, 1901-05, -	20·2	3·8	18·8	0·4	0·9
Average, 1906-1910, -	12·6	2·2	17·4	0·3	0·5
Average, 1911-15, -	6	1·4	23·3	0·13	0·3
Average, 1916-20, -	3·4	0·2	5·9	0·01	0·02
1921-25, -	0·8	0·2	25·0	0·01	—
1926-28, -	—	—	—	—	—

Paratyphoid Fever.

No cases were reported during the year.

Cerebro-Spinal Meningitis.

No cases were reported during the year.

Erysipelas.

30 cases were notified during the year, 2 of which were removed to hospital. 2 deaths occurred. The age periods of the cases and deaths are as follows:—

Ages,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75
Cases,	—	—	—	2	1	6	2	10	7	1	1
Deaths,	—	—	—	—	—	—	—	1	1	—	—

The distribution of cases according to parish will be found in Table D.

Pneumonia.

The notifications of acute primary pneumonia numbered 66, while 2 cases of influenzal pneumonia were notified, the total number of pneumonia cases being slightly more than the total notifications of last year. The age periods of incidence are as follows:—

Acute Primary Pneumonia—

-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-75
2	13	13	4	10	6	8	4	6

Influenzal Pneumonia—

-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-75
—	—	1	—	—	1	—	—	—

The death-rate and the number of deaths will be found under the heading of Respiratory Diseases.

Dysentery.

No cases were reported during the year.

Encephalitis Lethargica.

No cases were reported during the year.

Acute Poliomyelitis.

3 cases of this disease were notified during the year.

Chickenpox.

The Public Health (Chickenpox) Regulations (Scotland), 1927, dated 25th March, 1927, made this disease notifiable forthwith. The regulations were to have effect until 30th September, 1927, but were continued until 31st December, 1928. They are again continued, and are now to remain in force until 31st December, 1930.

86 cases of the disease were notified. The type of the disease was very mild, and the distribution of cases in the various parishes will be found in Table D.

The age incidence of the cases was as follows :—

	-1	1-5	5-10	10-15	15-25	25-35
Cases, - - -	4	26	45	9	1	1

Puerperal Fever.

3 cases of this disease were notified during the year by the medical practitioners in attendance. 1 case was treated in hospital, while 2 were treated at home. 1 death occurred in hospital. Further reference with regard to these cases will be found in the section dealing with Maternity and Child Welfare.

Ophthalmia Neonatorum.

2 cases were notified during the year by the medical practitioners in attendance. 1 case was treated in hospital. Further reference will be found in the section dealing with Maternity and Child Welfare.

School Closure.

No schools were closed during the year on account of infectious disease. It was found necessary, however, to make several visits to various schools for the purpose of examining the scholars with a view to detecting unrecognised or missed cases of infectious disease. Smyllum Orphanage was continuously under observation on account of scarlet fever. Coalburn School was also visited on account of the prevalence of scarlet fever, while Auchenheath and also Bent Schools were visited on account of diphtheria.

Anthrax.

7 outbreaks of this disease in cattle were reported during the year, and occurred in the following parishes :—Carlisle, 1; Carnwath, 2; Douglas, 1; Lesmahagow, 3. The animals affected numbered 7. No cases of suspicious illness occurred amongst those persons in contact with the diseased animals.

Venereal Diseases.

The treatment of these diseases is carried out under the Scheme of the Joint-Committee for Venereal Diseases. During the year 34 new cases were reported (gonorrhœa, 16; syphilis, 9; N.V.D., 2). Of these, 9 cases (gonorrhœa, 5; syphilis, 2; N.V.D., 2) received

hospital treatment, while the remaining 25 (gonorrhœa, 11; syphilis, 7; N.V.D., 7) received outdoor treatment at the various clinics. The total attendances at the various clinics numbered 323—gonorrhœa, 262; syphilis, 44; others, 17. Specimens of blood for the Wasserman reaction numbered 24, of which 4 were reported positive and 20 negative, while of 15 bacteriological tests for the presence of gonococci, 14 were returned as negative and 1 as positive.

Hospital Accommodation.

Until the year 1897 the Upper Ward District Committee had no hospital accommodation of their own except their interest in the Joint Fever Hospital at Lanark, to which Upper Ward patients could be admitted from the Parish of Lanark only.

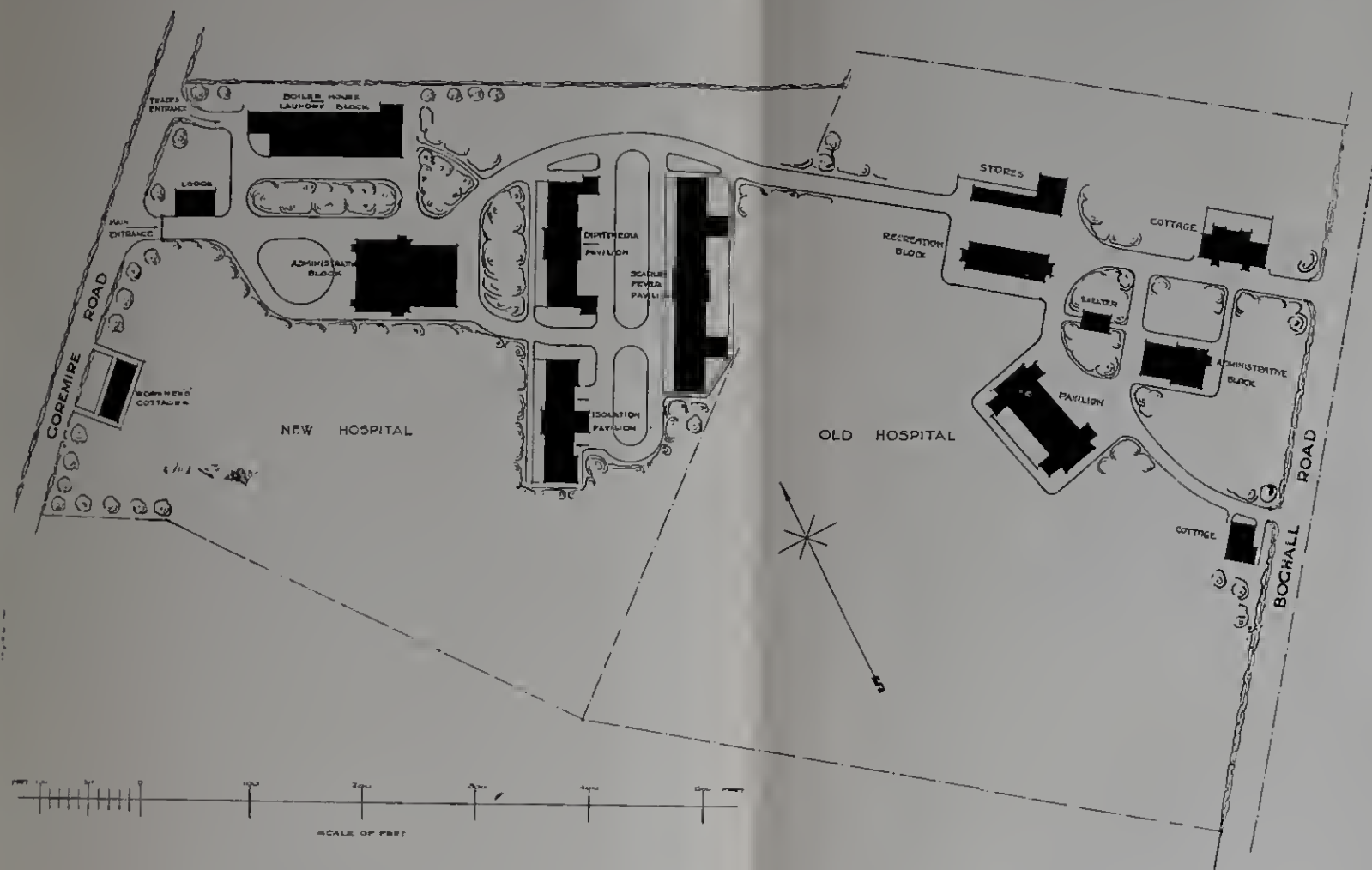
After considerable negotiations with regard to site, &c., the District Hospital at Roadmeetings was opened in 1897. This comprised two wards of five beds each and two wards of one bed each, making twelve beds in all. The whole structure, which consisted of wood and iron buildings, formed the first isolation hospital in the Lower Ward of the County of Lanark, and was situated at Shettleston. This was gifted to the Upper Ward and re-erected at Roadmeetings. This building continued in use until the year 1907, when the District Committee provided additional permanent accommodation, consisting of an Administration Block and a twelve-bed Ward Pavilion. This building was formally opened on 19th November, 1907, by the Chairman of the District Committee. This hospital, along with the temporary wooden structures, having in all 22 beds, continued to meet the demands of the District, until, in the year 1914, all forms of tuberculosis became compulsorily notifiable.

To provide for the accommodation and treatment of tuberculosis the District Committee resolved to have their acute infectious cases treated at the County Hospital, Motherwell, and Lanark Burgh Fever Hospital, and to reserve Roadmeetings for the treatment of tuberculosis only. This change took place in the year 1919.

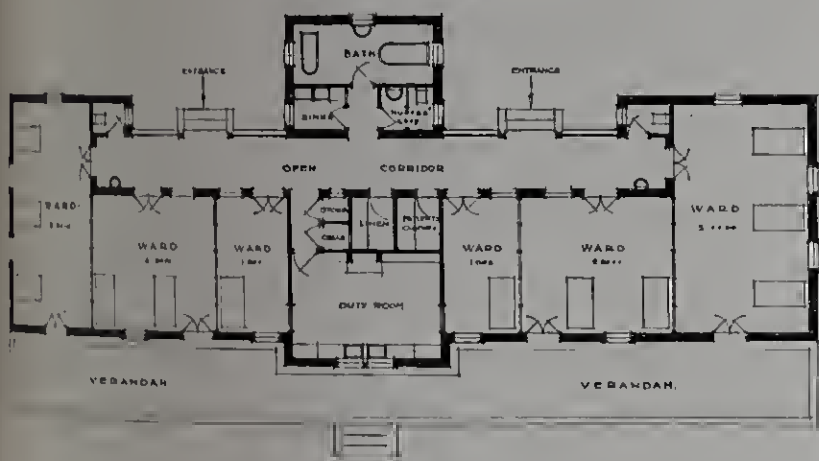
Several years ago the District Committee again considered the desirability of having their cases of infectious disease under their care on finding that at certain periods of the year difficulty was experienced in obtaining accommodation in Institutions owned by other Local Authorities. Accordingly it was resolved to proceed with the erection of a new hospital for the treatment of infectious diseases in the District.

COUNTY OF LANARK — UPPER WARD DISTRICT HOSPITAL AT ROADMEETINGS, CARLUKE

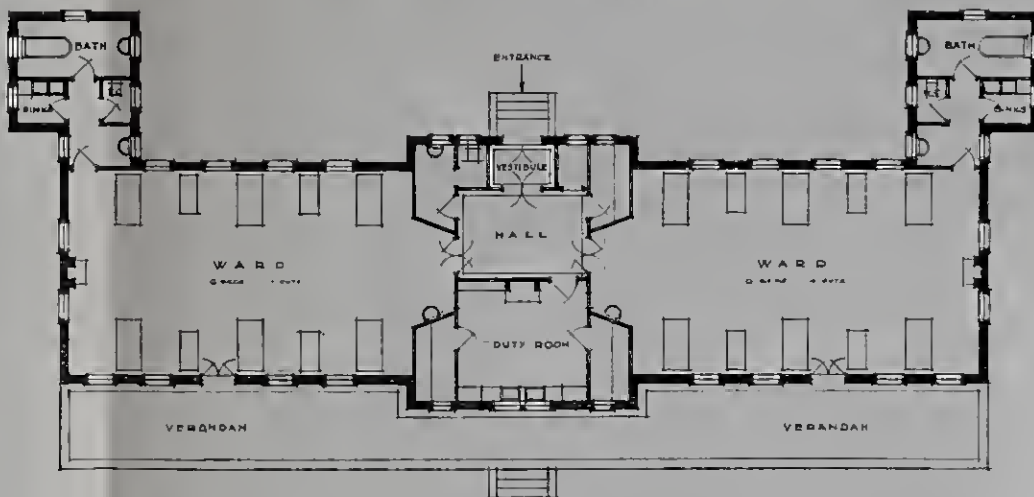
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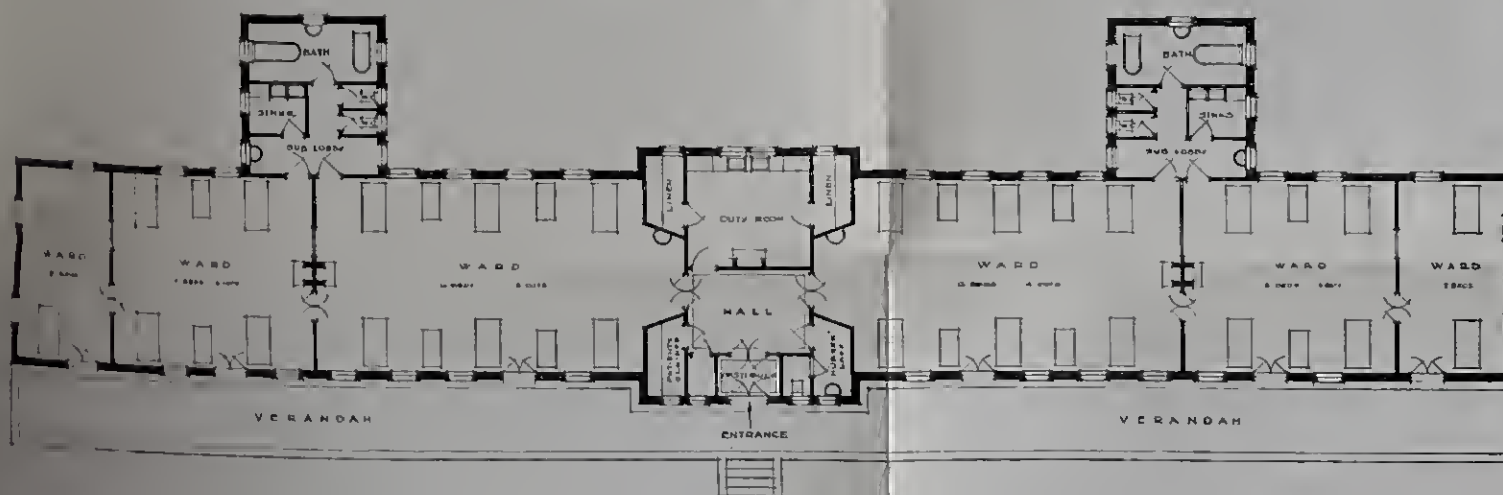
ISOLATION PAVILION



DIPHTHERIA PAVILION



SCARLET FEVER PAVILION



CULLEN LOCKHEAD & BROWN
ARCHITECTS HAMILTON

The erection and equipment of the new hospital is now an accomplished fact, the accommodation consisting of a scarlet fever pavilion, diphtheria pavilion, isolation pavilion, and an administration block. These pavilions have a minimum accommodation for 48 beds, but the cubic capacity and construction of the wards is such that no fewer than 74 patients can be admitted. Cases of tuberculosis are treated in the old Sanatorium buildings, and these cases are referred to later in this Report. A block plan of the Hospital and Sanatorium is inserted in the Report, as well as detailed plans of the Scarlet Fever, Diphtheria, and Isolation Pavilions.

The hospital was formally opened on 15th November, and patients were admitted on 19th November. The following tabular statement shows the admissions and discharges since that date, and the number of patients resident at the end of the year classified according to the disease :—

	Admitted.	Discharged. Recovered.	Died.	In Hospital at 31st Dec., 1928.
Scarlet Fever, - -	49	23	—	26
Diphtheria, - -	11	1	1	9
Pneumonia, - -	1	—	—	1
Pelvic Cellulitis, -	1	—	—	1
	62	24	1	37

Staff Illnesses.—Scarlet fever, 1; tonsillitis, 2; scarlet fever and diphtheria, 1.

Total admissions to various hospitals throughout the year were as follows :—

Diseases.	Lanark Fever Hospital.	County Hospital, Motherwell.	District Hospital. Roadmeetings.	Total.
Scarlet Fever, - -	93	92	24	209
Diphtheria, - -	45	20	11	76
Erysipelas, - -	—	2	—	2
A.P. Pneumonia, - -	—	15	1	16
Influenzal Pneumonia, -	—	1	—	1
Puerperal Fever, -	—	1	—	1
Ophthalmia Neonatorum,	—	1	—	1
Acute Poliomyelitis, -	—	1	—	1
Tetanus. - - -	—	1	—	1
Pelvic Cellulitis, - -	—	—	1	1
	138	134	37	309

Note.—In addition 25 scarlet fever cases were removed from the County Hospital, Motherwell, to convalesce at the District Hospital, Roadmeetings, immediately after the latter was opened.

A case of scarlet fever admitted to Lanark Fever Hospital was removed to the County Hospital, Motherwell, for surgical treatment.

A case of scarlet fever was re-admitted to Lanark Fever Hospital (after discharge home) for further treatment.

Tuberculosis.

The Burghs of Biggar and Lanark being included in the Upper Ward District Tuberculosis Scheme, statistics relating to the three areas are given separately.

Upper Ward.—The following tabular statement shows a marked decline in the deaths and death-rate from tuberculosis since the commencement of County administration:—

	PULMONARY.			NON-PULMONARY.		
	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.
Annual Average—						
1891-95,	- —	45	12·0	—	23	6·2
1896-1900,	- —	47	11·9	—	17	4·4
1901-05,	- —	43	10·5	—	20	4·9
1906-10,	- 36	35	8·1	—	15	4·4
1911-15,	- 50	32	7·0	—	13	2·8
1916-20,	- 43	28	6·3	25	15	3·3
1921-25,	- 42	23	4·8	32	14	2·9
1926, -	- 32	21	4·3	32	11	2·2
1927, -	- 44	28	5·8	24	10	2·1
1928, -	- 30	20	4·1	31	9	1·9

Mortality.—The deaths from all forms of tuberculosis numbered 29, and were classified as follows:—Pulmonary, 20; abdominal, 3; meningeal, 4; other forms, 2. The deaths will be found classified according to parish in Table B.

The death-rate from all forms of the disease was 0·62 per 1,000 of the population. The death-rate of the various forms of the disease and also the age incidence of the deaths will be found in Table C.

Deaths in relation to Notification.—There are still a number of cases in which medical practitioners fail to carry out their legal duties and notify punctually when the case becomes known. Some cases are not notified until death is approaching, and in others the case only becomes known when the local Registrar's return of deaths is received.

Of the 29 net deaths from tuberculosis, 20 were of the pulmonary form. Of these, 12 were notified, leaving 8 not notified. Of the total net deaths, 13 occurred in institutions.

The period elapsing between notification and death was:—Under 1 month, 2 cases; 1-3 months, 2; 3-6 months, 3; 6-9 months, 1; 9-12 months, 1; 1-2 years, nil; over 2 years, 3.

Of the 29 net deaths from tuberculosis, 9 were of the non-pulmonary type. Of these, 5 were notified (2 after death), leaving 4 not notified. Of the total net deaths, 5 occurred in institutions.

The period elapsing between notification and death was:—Under 1 month, 0; 1-3 months, 2; 3-6 months, 0; 6-9 months, 1; 9-12 months, 0; 1-2 years, 0; over 2 years, 0; notified after death, 2.

Notifications.—The number of cases notified amounted to 62—pulmonary, 31; non-pulmonary, 31—showing a decrease of 9 in comparison with last year. Of the 31 new pulmonary cases 1 had been previously notified, leaving 30 new cases notified during the year. Of these 30 pulmonary cases, 5 died and 2 left the district and 2 had diagnosis revised, leaving 21 new cases on the register at the end of the year. Of the 31 non-pulmonary cases notified, no cases had been previously notified, leaving 31 new cases. Of these 31 new cases 5 died, and 1 left the District, leaving 25 new non-pulmonary cases on the register at the end of the year.

Housing in relation to Notification:—

	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.	Over 6 apts.	Institution.	Total
Pulmonary Tuberculosis,	2	11	9	4	2	2	1	31
Non-Pulmonary, -	- 8	14	7	—	—	—	2	31

The *age incidence* of the cases notified was as follows:—

	-1	1-5	5-15	15-25	25-45	45-65	65 and over.	Total.
Pulmonary,	—	2	3	11	13	2	—	31
Meningeal,	1	—	—	—	—	—	—	1
Abdominal,	—	4	1	1	2	—	—	8
Other Forms,	—	2	9	6	5	—	—	22
Total, -	1	8	13	18	20	2	—	62

The *occupations* of the cases notified were classified thus:—Factory workers, 2; farm servants, 3; housewives, 14; labourers, 2;

miners, 5; nurse, 1; police constables, 2; scholars, 14; railwayman, 1; shepherd, 1; tomato worker, 1; fruit-grower, 1; glassworker, 1; domestic servants, 2; no occupation, 12.

Total Cases on Record.—The total cases on record as shown in the following statement amounted to 181—pulmonary, 91; and non-pulmonary, 90.

CHANGES DURING 1928.

	Cases in District 1-1-28.	New Cases.	Total on Record.	Left District.	Died.	Off List.		Cases in District 31-12-28.
						Disease apparently Arrested	Diagnosis Revised.	
Pulmonary, -	89	30	119	13	11	2	2	91
Non-Pulmonary,	79	31	110	9	9	2	—	90

The 2 pulmonary cases taken off the list consist of cases in which the disease is apparently arrested, a period of three years or more having elapsed without any further breakdown in the condition of the patient. The 2 non-pulmonary cases taken off the list are abdominal, 1; and joint, 1.

In 2 cases which were notified in the year 1928, the diagnosis was revised to (1) cardiac disease; and (2) debility.

The cases receiving domiciliary treatment numbered 28.

The cases receiving institutional treatment are dealt with under the heading "Sanatoria."

Burgh of Lanark.—During the year there were 5 *deaths* from tuberculosis—pulmonary, 3; non-pulmonary, 2.

The *notifications* received numbered 8. The notifications according to the form of the disease, were as follows:—pulmonary, 1; non-pulmonary, 7.

The *occupations* of the cases notified were classified thus:—Shop assistant, 1; scholars, 4; hotel worker, 1; no occupation, 2.

The *age incidence* of the cases notified was as follows:—

	1-5	5-15	15-25	25-45	45-65	65 and over.	Total.
Pulmonary, -	—	—	—	1	—	—	1
Non-Pulmonary,	2	4	1	—	—	—	7

Institutional Treatment.—7 cases—2 pulmonary and 5 non-pulmonary received treatment in the District Sanatorium, Roadmeetings.

Domiciliary Treatment.—3 cases received treatment.

Burgh of Biggar.—No deaths were registered from tuberculosis during the year.

No notifications were received.

Institutional Treatment.—1 pulmonary case received treatment in the District Sanatorium, Roadmeetings.

Domiciliary Treatment.—No cases received treatment.

SANATORIA.

DISTRICT SANATORIUM, ROADMEETINGS.

The old Hospital buildings at Roadmeetings are reserved for the treatment of tuberculosis. During the year 51 cases were admitted -- 43 from the Upper Ward, 1 from the Burgh of Biggar, and 7 from the Burgh of Lanark.

Patients treated.—14 pulmonary and 6 non-pulmonary cases were in residence at the beginning of the year, and during the course of the year 32 pulmonary and 19 non-pulmonary cases were admitted, making the total number of patients under treatment during the year 71.

During the year 30 pulmonary and 10 non-pulmonary cases were discharged, and 7 pulmonary and 3 non-pulmonary cases died, leaving 9 pulmonary and 12 non-pulmonary cases under treatment at the close of the year.

Place of Residence.—The parishes of residence of the cases discharged were as follows:—Carluke, 6; Carmichael, 2; Carnwath, 7; Carstairs, 2; Crawford, 3; Dolphinton, 1; Douglas, 1; Lamington, 2; Lanark, 2; Lesmahagow, 7; Libberton, 1; Pettinain, 1; Symington, 1; Burgh of Lanark, 4.

Age and Sex.—The cases discharged are shown in the following table, classified according to age and sex, and according to age

groups for both sexes. In each age group the number of pulmonary, non-pulmonary, and non-tuberculosis cases are shown :—

Age Periods.	Males.	Females.	Total.		Pul-monary.	Non-Pul-monary.	Non-Tuber.	Total.
-5	—	3	3	Pre-school age	—	2	1	3
-10	5	1	6	School age	2	4	—	6
-15	—	—	—					
-20	2	4	6	Adolescence	13	1	1	15
-25	2	3	5					
-30	2	2	4					
-35	6	1	7	Early Maturity	11	2	—	13
-40	4	—	4					
-45	2	—	2					
-50	—	1	1	Late Maturity	2	1	—	3
-55	—	1	1					
-60	—	—	—					
-65	1	—	1					
Total,	24	16	40		28	10	2	40

Pulmonary Cases Discharged.

Duration of illness.—The duration of illness on admission, stated in monthly periods, was as follows :—

Months,	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
	6	4	1	—	5	14	30

Earliest Manifestations.—From the histories of illness, taken on admission, the earliest signs or symptoms indicative of a departure from normal health were :—Cough, 15; influenza, 2; pneumonia, 2; pleurisy, 1; hæmoptysis, 4; debility, 6; diarrhœa, 1—total, 30.

General Results.—The general condition on discharge may be given as follows :—Very much improved, 23; improved, 4; unchanged, 3—total, 30.

Non-Pulmonary Cases Discharged.

The cases discharged during the year numbered 10. These may be classified as follows :—Cervical adenitis, 1; abdominal, 6; spine, 2; mediastinal glands, 1.

TABLE E.

REGISTRATION DISTRICTS.	Registered (corrected for transfers).	BIRTHS.		NUMBER OF VISITS.			ATTENDANT AT CONFINEMENT.				Deaths corrected transfers.
		Notified.		First.	Subsequent.	Special.	TOTAL.	Doctor.	Certified Midwife.	Handy Woman.	
		Alive.	Still-born.								
<i>Chiefly Industrial.</i>											
Carlisle,	218	216	2	195	1,534	212	1,941	208	10	...	12
Carmichael,	42	43	2	33	273	53	359	41	4	...	6
Carnwath,	42	37	2	34	204	5	243	38	1	...	2
Forth, &c.,	62	60	3	44	569	1	614	60	3	...	2
Tarbrax,	12	11	1	10	306	...	316	7	4	1	...
Carstairs,	47	40	2	33	367	102	502	42	...	...	8
Leadhills,	11	12	...	...	...	...	...	12	...	...	...
Douglas,	62	62	4	56	479	97	632	64	2	...	9
Lanark,	31	29	3	16	283	76	375	27	5	...	3
Lesmahagow,	180	173	8	155	661	202	1,018	137	44	...	14
Kirkfieldbank,	32	36	2	39	294	41	374	27	11	...	2
Coalburn,	61	60	3	64	158	13	235	61	2	..	2
Total,	800	779	32	679	5,128	802	6,609	724	86	1	60
<i>Chiefly Agricultural.</i>											
Biggar,	11	8	...	10	80	8	98	8	...	...	...
Covington,	8	9	...	7	135	20	162	8	1	...	...
Crawford,	7	6	2	15	119	6	140	7	1	...	...
Crawfordjohn,	8	8	1	...	...	...	...	9	...	...	...
Coulter,	4	4	.	3	32	2	37	4	...	...	...
Dolphinton,	6	5	...	...	...	...	...	5	...	...	...
Dunsyre,	2	2	...	...	...	...	...	2	...	...	...
Lamington,	5	4	2	...	...	...	...	6	...	...	...
Libberton,	8	7	...	2	25	2	29	7	...	...	...
Pettinain,	7	6	...	2	90	3	95	6	...	...	1
Symington,	13	13	...	11	49	3	63	13	...	...	...
Walston,	4	6	...	...	...	...	...	6	...	...	...
Wiston,	5	1	...	...	...	...	...	1	...	...	...
Total,	88	79	5	50	530	44	624	82	2	...	1
Combined Total,	888	858	37	729	5,658	846	7,233	806	88	1	61
Burgh of Biggar,	17	18	1	16	148	15	179	19	...	...	...
Burgh of Lanark,	112	113	7	66	584	152	802	94	26	...	6
Total,	1,017	989	45	811	6,390	1,013	8,214	919	114	1	67

Duration of Illness.—The duration of illness on admission, stated in monthly periods, was as follows:—

Months,	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
	3	1	1	1	—	4	10

General Results.—The general condition on discharge may be given as follows:—Very much improved, 5; improved, 4; unchanged, 1—total, 10.

Other Institutions.

In addition to the cases treated at the District Sanatorium, cases were treated in other institutions in the County, viz.:—County Hospital, Motherwell, 5; Hairmyres Colony, 2; Stonehouse, 2.

MATERNITY AND CHILD WELFARE.

While the Burghs of Biggar and Lanark are included in the Upper Ward Scheme, the statistics relating to the three areas are given separately.

UPPER WARD.—Staffing Arrangements—The staffing arrangements remain as stated in previous reports.

Births.—The number of births registered in the Upper Ward corrected for transfers, numbered 888—males, 453; females, 435—the birth-rate for the year being 18·5 per 1,000 of the population. Of the 888 births, 74 were illegitimate—males, 39; females, 35—giving an illegitimate rate of 8·4 per 100 births.

Notification of Births.—The number of notifications received was 895, of which 858 were live births, and the remaining 37 being still-births. The percentage of births notified to births registered was 96·5, excluding still-births. The 37 still-births were attended as follows:—34 by medical practitioners, and 3 by certified midwives, while of the 858 live births it was found that 772 were attended by doctors, 85 by certified midwives, and 1 by an uncertified midwife.

Table E shows the births registered, births notified, visits made by the Nursing Health Visitors, the attendant at confinement as ascertained at the first visit, infant deaths registered, and the infantile death-rate, the information being tabulated according to registration districts, and subdivided into agricultural and industrial areas.

Infantile Mortality.—Infant deaths numbered 61 after correction for transfers—males, 34; females, 27—giving an infant mortality rate of 68·7 per 1,000 births. Of these deaths 59 were of legitimate infants—males, 33; females, 26—while the illegitimate deaths numbered 2—male, 1; female, 1. The number of deaths showed a decrease of 3 in comparison with the previous year's figure of 64.

Of the 61 deaths, 31, or 50·8 per cent., occurred during the first four weeks of life, while of these 31 deaths, 12 were due to premature birth, and 12 fall into the classification of atrophy, debility, and marasmus.

TABLE F

	Weeks.		Months.			Total.
	1	1-4	1-3	3-6	6-12	
Chickenpox, - - - - -	—	—	—	—	—	—
Measles, - - - - -	—	—	—	—	2	2
Scarlet Fever, - - - - -	—	—	—	—	—	—
Whooping-Cough, - - - - -	—	—	2	—	—	2
Diphtheria and Croup, - - - - -	—	—	—	—	—	—
Erysipelas, - - - - -	—	—	—	—	—	—
Tuberculous Disease, - - - - -	—	—	—	—	—	—
Meningitis (not Tuberculous), - - - - -	—	—	—	1	—	1
Hydrocephalus, - - - - -	—	—	—	—	—	—
Convulsions, - - - - -	—	—	—	—	—	—
Pneumonia (all forms), - - - - -	—	—	5	1	4	10
Influenza, - - - - -	—	—	—	1	—	1
Bronchitis, - - - - -	—	—	1	—	—	1
Diarrhœa and Enteritis, - - - - -	—	—	—	1	3	4
Other Digestive Diseases, - - - - -	—	—	—	—	—	—
Congenital Malformation, - - - - -	—	2	1	—	—	3
Congenital Heart Disease, - - - - -	1	—	—	1	—	2
Premature Birth, - - - - -	10	2	1	—	—	13
Atrophy, Debility, and Marasmus, - - - - -	8	4	4	—	—	16
Atelectasis, - - - - -	—	—	—	—	—	—
Injury at Birth, - - - - -	—	—	—	—	—	—
Suffocation (overlying) - - - - -	—	—	—	—	—	—
Syphilis, - - - - -	—	—	1	—	—	1
All other causes, - - - - -	3	1	—	1	—	5
Total, - - - - -	22	9	15	6	9	61

Maternal Mortality.—Inquiry is made into all deaths occurring within four weeks after confinement with a view to ascertaining the cause of death. With the exception of cases removed to hospital, the

first intimation of these deaths is usually obtained from the returns of the local Registrars. 5 maternal deaths occurred during the year, the certified causes of death being:—Pulmonary embolism, 1; puerperal septicæmia, septic pneumonia, 1; morbus cordis, toxæmia of pregnancy, 1; puerperal eclampsia, 1; puerperal fever, unresolved pneumonia, cardiac failure, 1.

Three of these deaths occurred in hospital, while the remaining two occurred at home.

Puerperal Sepsis.—3 cases were notified during the year by the medical practitioner in attendance, and were as follows:—

- (1) M. 32 years. Confinement natural B.B.A. Lochia normal. Elevation of temperature being the only indication of infection. Suffered from influenza immediately before confinement, with marked sickness and vomiting, and was in a very weak state of health.
- (2) M. 24 years. Confinement natural. Elevation of temperature on fifth day after confinement. Lochia offensive. Temperature normal on 10th day.
- (3) M. 30 years. Instrumental delivery. Elevation of temperature with slight headache on evening of first day. Removed to County Hospital, Motherwell.

Hospital Admission.—Of the 3 cases notified, 1 was removed to hospital.

Deaths.—Of the 3 cases notified 2 deaths occurred, 1 in hospital 17 days after confinement, the certified cause of death being puerperal fever, unresolved pneumonia, cardiac failure; while the other occurred at home 12 days after confinement, the certified cause of death being puerperal septicæmia, septic pneumonia.

The following statement shows the cases of puerperal sepsis and deaths during the past eight years:—

Year.	Cases notified.	Cases per 1,000 births.	Deaths.	Deaths per 1,000 births.
1921,	...	—	—	—
1922,	...	1	—	—
1923,	...	1	—	—
1924,	...	3	3	2·6
1925,	...	5	1	·9
1926,	...	5	3	3·0
1927,	...	4	1	1·0
1928,	...	3	2	2·3

Ophthalmia Neonatorum.—During the year 2 cases were notified by the medical practitioners in attendance and were admitted to hospital owing to the inability of the parents to look after the child properly. Both cases made complete recoveries with no impairment to vision.

Measles and Whooping-Cough.—Under this scheme partial notification of these diseases is in force in the District.

Measles.—In all 510 cases came to the knowledge of the Department during the year. Of these, 280 were notified by the doctor in attendance, while the remainder were reported by the nursing staff and from the schools in the district. 358 of the total number were under 5 years of age, the age incidence being given under the heading of non-notifiable diseases.

Deaths.—5 deaths occurred during the year, 4 occurring at home and 1 in hospital, all being under 5 years of age. The age periods of the deaths are given under the heading of non-notifiable diseases. The ultimate causes of deaths were as follows:—(1) Pneumonia; (2) broncho-pneumonia; (3) bronchitis, convulsions; (4) broncho-pneumonia; (5) broncho-pneumonia, empyema.

Hospital Admissions.—3 cases of measles, owing to their severity, were admitted to the County Hospital, Motherwell.

Whooping-Cough.—In all 142 cases came to the knowledge of the Department during the year. Of these, 54 were notified under the scheme by the medical attendant, the remainder being reported by the nursing staff and from schools. Of the total 142 cases, 98 were under 5 years of age. The age incidence of the cases is given under the heading of non-notifiable diseases.

Deaths.—6 deaths occurred during the year, all occurring at home. 5 of the deaths were under 5 years of age, the age periods at death being given under the heading of non-notifiable diseases. The ultimate causes of death were as follows:—(1) Bronchitis; (2) pulmonary congestion, acute pericarditis; (3) convulsions; (4) broncho-pneumonia; the remaining 2 deaths being certified as whooping-cough.

Hospital Admission.—1 case of whooping-cough was admitted to the County Hospital, Motherwell, owing to the severity of the illness.

Hospital Accommodation for Measles and Whooping-Cough.—Arrangements have been in force whereby severe cases, or cases where

home conditions are not satisfactory, could be admitted to the County Hospital, Motherwell, but in future these will be admitted to the new District Hospital, Roadmeetings.

Home Visitation.—The visits made under this scheme, excluding the two burghs which are given later, numbered 7,233, of which 729 were first visits, 5,658 subsequent visits, and 846 special visits. Of these visits, 576 first visits, 4,155 subsequent visits, and 780 special visits were made by the Nurse Health Visitors. The visits made by the District Nurses numbered 153 first visits, 1,503 subsequent visits, and 66 special visits, giving a total of 729 first visits, 5,658 subsequent visits, and 846 special visits. Special visits included—expectant mothers, 248; whooping-cough, 115; measles, 429; other visits, 54.

The total visits, including the two burghs, were as follows:—811 first visits, 6,390 subsequent visits, and 1,013 special visits, giving a total of 8,214 visits paid under this scheme.

Feeding of Infants.—Of the 811 first visits made, it was found that the feeding of these infants at the time of the first visit was as follows:—

BREAST			Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
Only	With Cow's Milk	With Patent Food			
614	64	10	102	16	5

After deduction of removals and deaths it was found from the records that the feeding at six months could be obtained of 359 infants. The feeding of these 359 infants is given at time of first visit for comparison with the feeding at six months in the following statement:—

	BREAST			Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
	Only	With Cow's Milk	With Patent Food			
At first visit,	280	14	3	49	13	—
At 6 months,	176	26	33	90	32	2

Child Welfare Centres.—The attendances and consultations at the four Child Welfare Centres were as follows:—

	Mothers.	Babies and Children.	Consultations.
Lanark, - -	987	1,171	134
Carluke, . -	1,032	1,215	117
Coalburn, - -	245	284	58
Douglas Water, -	276	374	32

Necessitous Cases.—Following the practice of last year, an effort has been made to classify those receiving assistance according to their medical condition. The number shows a definite decrease from last year, and is made up as follows:—Expectant mothers, 40; nursing mothers, 90; children under 1 year, 61; children under 5 years, 63.

	Mothers.		Children.		Total.
	<i>Expectant.</i>	<i>Nursing.</i>	-1	-5	
Debility, - - - -	23	47	18	18	106
Inability to Nurse, - - -	1	21	—	—	22
Loss of Weight, - - - -	—	—	13	2	15
Malnutrition, - - - -	12	5	9	11	37
<i>Infectious Diseases (debility following)—</i>					
Measles, - - - -	—	—	5	5	10
Whooping-Cough, - - - -	—	—	2	3	5
Influenza, - - - -	—	2	—	—	2
<i>Respiratory Diseases—</i>					
Pneumonia, - - - -	1	—	5	6	12
Bronchitis, - - - -	1	—	4	3	8
<i>Digestive Diseases—</i>					
Gastritis, - - - -	—	—	2	1	3
Gastro-Enteritis, - - - -	—	—	—	3	3
<i>Diseases connected with Pregnancy—</i>					
Phlebitis, - - - -	—	1	—	—	1
Post-partum hæmorrhage, - - -	—	2	—	—	2
Puerperal Fever, - - - -	—	2	—	—	2
<i>General Diseases—</i>					
Anæmia, - - - -	6	6	—	—	12
Rickets, - - - -	—	—	2	7	9
Nephritis, - - - -	3	—	—	—	3
Infantile Paralysis, - - - -	—	—	—	1	1
Boils, - - - -	—	1	—	1	2
Adenitis, - - - -	—	—	—	1	1
Congenital Hernia, - - - -	—	—	1	—	1
Impetigo, - - - -	—	1	—	1	2
Cardiac Disease, - - - -	2	2	—	—	4
Total, - - - -	49	90	61	63	263

Ultra-Violet Ray Therapy.—Good results continue to be obtained from the use of this form of treatment in the debilitated conditions of infants. Treatment commenced with short exposures—back and front—at a distance of three feet for $1\frac{1}{2}$ minutes. The lamp was used on 88 days during the year, and a total of 1,110 exposures was given.

The routine administration of cod-liver oil was again carried out, and in practically all cases a noticeable gain in weight was recorded after a few exposures had been given. On the whole, mothers attended with the infants with great regularity.

Hospital Admissions.—During the year there were 68 admissions to the County Maternity Hospital, Bellshill, which were as follows:—Normal confinements, 47; abnormal confinements, 8; illness connected with pregnancy, 12. Children under 5 years, 1 (mother died in hospital). While some normal confinements were admitted on account of housing conditions, others were admitted as emergency cases, sent in by the medical attendant, the birth taking place naturally in hospital.

To the County Hospital, Motherwell, there were 6 admissions under the scheme—puerperal sepsis, 1. Children under 5 years, 5—whooping-cough, 1; measles, 3; ophthalmia neonatorum, 1.

To the County Convalescent Home, Calderbank House, Baillieston, there were 7 admissions. Illness connected with pregnancy, 5. Children under 5 years, 2—debility, 1; and 1 infant admitted along with mother.

To the District Hospital, Roadmeetings, there was 1 admission—illness connected with pregnancy, 1.

Ear, Throat, and Nose Ailments.—1 child under 5 years was admitted to the County Convalescent Home, Calderbank House, for removal of adenoids.

BURGH OF LANARK.—The number of births in the Burgh, after correction for transfers, amounted to 112, of which 9 were illegitimate, giving a birth-rate of 17·8 per 1,000 of the population. The attendants at birth will be found in Table E, which also gives the number of births notified and the visits made by the Nurse Health Visitor.

Infantile Mortality.—The deaths of infants under 1 year numbered 7, giving an infantile mortality rate of 62 per 1,000 births. The causes of death were:—Premature birth, 4; gastro-enteritis, 1; measles, 1; pneumonia, 1.

Ophthalmia Neonatorum.—1 case was notified during the year. This case was classified as mild, and made a good recovery with no impairment to vision. The case was treated in the County Hospital, Motherwell.

Hospital Admissions.—During the year 15 cases were admitted to hospital:—County Maternity Hospital, Bellshill, 11—normal cases of confinement, 7; illness connected with pregnancy, 4. County Hospital, Motherwell, 2—puerperal sepsis, 1; children under 5 years, 1 (*ophthalmia neonatorum*).

Ear, Throat, and Nose Ailments.—Removal of tonsils and adenoids, 3. County Convalescent Home, Calderbank House, 2; County Hospital, Motherwell, 1.

Necessitous Cases.—The cases receiving assistance during the year numbered 40. These were as follows:—Expectant mothers, 2; nursing mothers, 10; children under 1 year, 10; children under 5 years, 18.

BURGH OF BIGGAR.—The number of births, after correction for transfers, amounted to 18—males, 8; females, 10, giving a birth-rate of 11·6 per 1,000 of the population.

The notifications of birth and the attendants at birth, as well as the visits made by the Nurse Health Visitor, will be found in Table E.

Infantile Mortality.—There were no deaths under 1 year.

Hospital Admissions.—There were no admissions to hospital during the year.

Ophthalmia Neonatorum.—No cases were notified.

Necessitous Cases.—Nil.

GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings “Housing,” “Water Supply,” “Drainage and Sewage Disposal,” “Scavenging,” “Nuisances,” “Tents, Vans, and Sheds,” “Workshops,” “Sanitary Conditions of Dairies, Cowsheds, and Milkshops, &c.”

Milk (Special Designations) Order (Scotland), 1923.

During the year there were 25 producers in possession of a licence from the Local Authority to sell the various grades of milk under the

above Order. These are as follows:—Certified Milk, 9; Grade A (T.T.), 14; Grade A, 2. There is little difficulty of disposing of the supply, but most of it is sent out of the District, with the exception of a certain amount retailed in the Biggar, Lanark, and Carluke areas. During the year one of the above licences was withdrawn in circumstances referred to later, and one certified licence was replaced by a licence for the sale of Grade A (T.T.) milk.

The following were the licences held during the year:—

Grade of Licence.	Name and Address of Licensee.
Certified	Andrew Murdoch, Teaths, Lesmahagow.
Do.	John Russell, Walston Mansions, Dunsyre.
Do.	*John Fairie, Littlegill, Auchenheath.
Do.	James G. Gilchrist, Auchtygemmel, Lesmahagow.
Do.	Lindsay Steele, Blackhill, Lesmahagow.
Do.	Harry Roscoe, Boghead, Crawford.
Do.	J. & T. Blackwood, Hill of Kilncadzow, Carluke.
Do.	James Hodge, Brownhill, Carnwath.
Do.	James A. Brown, Cormiston Towers, Biggar.
Grade A (T.T.) and Bottler's Licence	T. B. M'Gregor, Lesserlinn, Lanark.
Grade A (T.T.)	Gavin Hamilton, Auldtoun, Lesmahagow.
Do.	John Kirkwood, Scorrieholm, Lesmahagow.
Do.	Right Hon. Earl of Home, Newmains, Douglas.
Do.	†Samuel A. Ballantyne, Eastwood, Lesmahagow.
Do.	T. & W. Ballantyne, Woods, Auchenheath.
Do.	Thomas C. Stewart, Southfield, Kirkmuirhill.
Do.	James Barr, Whiteshaw, Carluke.
Do.	Hugh C. Brown, Birkwood Mains, Lesmahagow.
Do.	John Struthers, Anston, Dunsyre.
Do.	R. & W. Wallace, Linnhead, Lesmahagow.
Do.	Walter Adamson, Harleyholm, Carmichael.
Do.	John Cadzow, Craighead, Carluke.
Do.	Gavin Watson, Hillend, Lesmahagow.
Do.	*John Fairie, Blackwoodyards, Kirkmuirmill.
Grade A and Bottler's Licence	James Barrie, Mossplatt, Carstairs.
Grade A	Archibald Affleck, Barnhills, Douglas Water.

The Licence held by Mr. Samuel Ballantyne, Eastwood, Lesmahagow, was discontinued during the year under somewhat unfortunate circumstances. At a tuberculin test carried out in

* The certified licence was discontinued owing to the owner removing to other premises. Application was made later for a Grade A (T.T.) licence for premises at Blackwoodyards, and this application was granted.

† Licence withdrawn.

December, 1927, out of 43 animals, only 11 passed the tests, 33 animals being in a large byre and 10 in a small byre. The 32 reactors were all in the large byre.

When this licence was granted in 1925, only two reactors were found in the herd, and subsequent tests in November, 1925, and May, 1926, disclosed no reactors. In May, 1927, there were 3 reactors found in the herd.

In view of the large number of reactors found at the test in December, 1927, it was agreed to continue the licence on the understanding that the producer would only sell as graded milk the produce of the non-reacting animals, and the Local Authority offered to have the herd re-tested at the expiry of two months at their own expense.

As the producer, however, continued to sell the whole produce of the herd as graded milk the Local Authority had no option but to intimate the withdrawal of the licence. An appeal was made to the Scottish Board of Health against the withdrawal of his licence, and at an inquiry presided over by Sheriff Pitman, K.C., at Lanark, it was agreed that a re-test of the dairy herd should be carried out by the nominated veterinary surgeon in the presence of veterinary surgeons representing the producer. This test disclosed similar results to that obtained in December. The producer was then communicated with, asking what steps he intended taking to have the reactors removed from the herd, but as his reply indicated that the selling off of the reactors would mean a big sacrifice, and that he was not prepared to do so in the meantime, the licence was withdrawn.

The following table shows the *bacterial content* of the samples taken during the year:—

Blood Heat Organisms per c.c.		Certified.	Grade A (T.T.)	Grade A.
Under	1,000 - -	8	1	—
„	2,500 - -	11	6	1
„	5,000 - -	9	7	—
„	10,000 - -	8	16	—
„	20,000 - -	5	15	2
„	30,000 - -	3	3	1
„	50,000 - -	2	—	1
„	100,000 - -	1	—	—
„	200,000 - -	—	1	—
Over	200,000 - -	—	1	—
		47	50	5
<hr/>				
Coliform Bacilli present in				
One-tenth of a c.c.		10	—	—
One-hundredth of a c.c.		1	2	—

Certified Milk.—On only three occasions was the bacterial content found to be above the standard, these samples being from different producers.

Ten samples were found to contain coliform bacilli in one-tenth of a c.c., and in one sample coliform bacilli were found in one-hundredth of a c.c. These samples were taken from six different vendors, and on instructions being given that more care should be taken with the milking methods, subsequent sampling carried out gave satisfactory results.

Grade A (Tuberculin Tested).—On only one occasion was the bacterial content found to be above the standard, and on two occasions coliform bacilli were found present in one hundredth of a c.c.

Chemical Analysis.—The following table shows the milk fat per cent. and the milk solids other than milk fat per cent. in the samples of graded milk taken throughout the year :—

Milk Fat per cent.	Certified	Grade A (T.T.)	Grade A	Non-fatty solids per cent.	Certified	Grade A (T.T.)	Grade A
3.1	1	—	—	7.9	—	1	—
3.2	—	—	—	8.2	—	—	—
3.3	1	1	—	8.3	—	—	—
3.4	2	1	—	8.4	—	—	—
3.5	3	4	1	8.5	—	1	—
3.6	2	4	—	8.6	—	1	—
3.7	5	3	—	8.7	1	1	—
3.8	4	5	2	8.8	2	2	—
3.9	3	3	1	8.9	6	5	—
4.0	3	7	1	9.0	14	12	2
4.1	3	6	—	9.1	5	2	1
4.2	4	4	—	9.2	8	10	1
4.3	5	6	—	9.3	7	9	1
4.4	4	3	—	9.4	2	3	—
4.5	2	—	—	9.5	—	3	—
Over 4.5	5	3	—	Over 9.5	2	—	—
—	47	50	5	—	47	50	5

Milk Fat.—4 samples of certified milk and 2 of Grade A (T.T.) milk were found not to comply with the standard of 3·5 per cent. of milk fat, these samples being from different producers.

A warning letter was sent to the vendors concerned, and subsequent sampling showed that the standard was being complied with.

56 of the samples taken, or almost 55 per cent., contained 4 per cent. or over of milk fat.

Veterinary Inspection of Dairy Herds.

The prevalence of tuberculosis of the udder among dairy stock is detailed in the following table, which shows the work done in the Upper Ward during the year. Samples of milk were drawn from all udders which, upon examination, showed a suspicious condition. 170 samples of milk were taken in this way and sent to the County Laboratory for examination, when 26 samples were found to contain tubercle bacilli. In these cases, certificates were granted by the County Veterinary Surgeon, stating that the animal suffered from tuberculosis of the udder, the animal being thereafter slaughtered under the Tuberculosis Order.

Under the Milk and Dairies (Scotland) Act, 1914, which came into force on 1st September, 1925, it is an offence to sell milk from a cow suffering from any disease liable to infect or contaminate the milk. Samples of milk are therefore taken in any case where a suspicious condition of the udder is noted. If, on examination in the laboratory, any samples are found to contain the streptococcus of mammitis or other infective organisms, a letter is sent to the owner of the animal pointing out that it is an offence to sell the milk from such a cow for human consumption, and asking him what he is doing to comply with the statute. During the year 30 such letters were sent.

UPPER WARD DISTRICT.
VETERINARY INSPECTION OF DAIRY HERDS.—YEAR 1928.

Parish	Herds Registered	Herds Inspected	Cows Inspected	Cows with Abnormal Condition of Udder						Samples of Milk			
				Tubercle	Atrophy	Mammitis	Induration N.T.	Eruption on Teats	Totals	Number taken	Number found to contain Tubercle	Number found to contain Infectious Organisms	Number Negative
Biggar,	22	26	456	...	9	...	2	...	11	3	...	1	2
Carluke,	78	87	1,455	...	30	3	17	1	51	25	...	5	20
Carmichael,	24	32	608	1	15	2	5	2	25	6	1	1	4
Carnwath,	88	108	2,253	3	52	3	25	6	89	38	3	7	28
Carstairs,	24	29	861	2	28	5	10	44	89	14	2	4	8
Covington	15	17	293	...	6	...	1	...	7	...	...	...	...
Crawford,	11	33	164	1	3	...	...	1	5	4	1	...	3
Crawfordjohn,	19	23	361	1	9	1	2	...	13	5	1	1	3
Coulter,	8	17	109	...	1	...	...	...	1	1	...	...	1
Dolphinton,	16	17	250	2	4	...	6	...	12	7	2	1	4
Douglas,	19	29	412	1	6	1	3	1	12	3	1	...	2
Dunsyre,	7	9	179	...	3	2	...	...	5	1	...	...	1
Lamington,	7	13	120	...	1	...	2	...	3	2	...	...	2
Lanark,	25	34	591	2	25	2	8	3	40	11	2	...	9
Lesmahagow,	164	188	3,689	6	112	6	24	9	157	32	6	8	18
Libberton,	23	31	735	3	25	1	6	2	37	8	4	1	3
Pettinain,	13	16	591	1	4	1	4	...	10	4	2	1	1
Symington,	14	19	139	...	...	1	3	...	4	3	...	1	2
Walston,	21	26	263	1	...	...	...	...	1	1	1	...	...
Wiston, &c.,	17	22	287	...	5	...	1	...	6	2	...	...	2
Total for													
Upper Ward,	615	776	13,816	24	338	28	119	69	578	170	26†	31*	113

† These samples were taken from 24 animals.

* Do. do. 30 do.

Public and Private Slaughter-houses.

There are in the Upper Ward District 4 public and 7 private slaughter-houses, the latter including a large sheepery.

The public abattoirs are situated in Carluke, Douglas, Forth, and Lesmahagow, and the private slaughter-houses in the following areas: Abington, Carnwath, Carstairs Junction, Crawford, Douglas Water, Leadhills, and Symington.

All the slaughter-houses within the District were regularly visited and, with few exceptions, were conducted in accordance with the By-laws.

The following tables give a record of (a) the animals killed and dues, &c., collected; and (b) the carcasses totally destroyed or partially condemned during the year in the various public abattoirs:—

1928.

RECORD OF ANIMALS KILLED.

Abattoir	Bulls	Bullocks	Cows	Heifers	Calves	Sheep	Swine	Totals	Offals, Fees, Dues, &c. Collected.		
									£	s.	d.
Carlukc, - -	36	453	107	225	3,964	929	3,962	9,676	893	17	2
Douglas, - -	...	106	...	27	...	174	28	335	28	8	4
Forth, - - -	...	69	2	229	2	219	109	630	57	16	0
Lesmahagow,	62	339	214	72	4	740	170	1,601	257	15	7
Total, -	98	967	323	553	3,970	2,062	4,269	12,242	£1,237	17	1

1928.

RECORD OF CARCASSES TOTALLY OR PARTIALLY CONDEMNED.

Abattoir	CATTLE.				CALVES.			SHEEP.			SWINE.			
	Complete Carcasses	Part Carcasses	Heads	Internal Organs	Complete Carcasses	Heads	Internal Organs	Complete Carcasses	Heads	Internal Organs	Complete Carcasses	Part Carcasses	Heads	Internal Organs
Carlukc, -	81	10	15	114	4	1	23	...	...	12	3	...	110	101
Douglas, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forth, -	1	1	...	8	...	...	...	...	...	...	...	...	...	...
Lesmahagow,	5	41	7	67	1	...	...	...	...	22	...	...	...	1
Total, -	87	52	22	189	5	1	23	...	...	34	3	...	110	102

The following table gives a record of the animals slaughtered at the undermentioned private slaughter-houses :—

1928.

RECORD OF ANIMALS KILLED.

Slaughter-house	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Swine	Totals
Abington, - - -	...	63	20	...	1	215	27	326
Carnwath, - - -	...	92	...	...	...	130	...	222
Carstairs Junction,	149	6	9	...	208	78	450
Crawford, - - -	...	63	...	...	...	225	34	322
Douglas Water, -	73	31	...	...	164	1	269
Leadhills, - - -	27	24	...	142	4	197
Total, - - -	...	440	84	33	1	1,084	144	1,786

CONDEMNATIONS.

Carstairs Junction,	-	1 Ox, partially condemned.
Do.,	-	1 Ox (lungs condemned).
Crawford,	-	Ox (internal organs).
Carnwath,	-	Ox (liver condemned).
Emergency Slaughter,	-	Bankhead Farm, Carnwath—Cow, liver condemned.
Do.,	-	Robiesland Farm, Lanark—Cow, uterus condemned.

OFFENSIVE TRADES.

Two businesses are conducted under this category in the Upper Ward District. These are (1) knacker's yard at Whitelees, Lanark; and (2) bone-degreasing plant at Braidwood.

No complaints were received during the year in respect of either business.

Report of the Sanitary Inspector.

HOUSING.

Building By-Laws.—During the year 75 sets of plans were lodged in accordance with the requirements of the Building By-laws. These plans related to new buildings; alterations; and additions to existing properties.

The plans, together with the relative schedules of information were examined, reported upon and submitted to the Public Health Committee. The tabular statement appended shows the nature of the plans dealt with under the By-laws.

In all 264 inspections were made of new buildings and 61 smoke tests were applied to drainage systems. In addition a number of smoke tests were applied to drains of existing buildings.

Over and above the houses erected by the District Committee under their housing schemes, which are referred to later, 21 houses were provided by private enterprise during the year, particulars of which are as follows:—

Bungalow of 6 apartments, scullery and bathroom, &c., at Bowmuir, Libberton.

Dwelling-house of 6 apartments, scullery and bathroom, &c., at St. Charles' Institution, Carstairs Junction.

Bungalow of 7 apartments, scullery and bathroom, &c., at Townhead, Crawford.

Dwelling-house of 5 apartments, scullery and bathroom, &c., Edinburgh Road, Biggar.

Dwelling-house of 6 apartments, scullery and bathroom, &c., at Wolfelyde, Coulter.

Bungalow of 4 apartments, scullery and bathroom, &c., at Townhead, Crawford.

The following 15 houses were erected under the Housing, 1923 (Subsidised Scheme), £82:—

Bungalow of 4 apartments, scullery and bathroom, &c., at Kingson's Knowe, Lanark.

PARISH.	Number of Plans.					New Houses and Apartments.					Apartments added to Existing Houses.						
	Submitted	Passed	Rejected	Not pro- ceeded with	Passed subject to alterations	Two	Three	Four	Five and Upwards	Total	One	Two	Three	Four	Five and Upwards	Total	Bathrooms, Sculleries, &c.
Biggar,	1	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Carlisle,	13	13	...	1	...	...	...	4	1	5	1	...	...	1	...	2	1
Carmichael,	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Carnwath,	12	12	...	1	...	...	1	...	...	1	...	3	...	...	...	3	4
Carstairs,	7	7	...	...	1	...	...	...	1	1	2	...	...	...	...	2	1
Covington, &c.,	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Crawford,	6	6	...	...	1	...	...	1	1	2	1	...	...	...	...	1	1
Crawfordjohn,	2	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Coulter,	1	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Douglas,	4	4	...	...	...	...	...	2	...	2	...	1	...	...	...	1	1
Lanark,	7	7	...	...	...	2	...	1	...	3	...	...	...	...	...	...	...
Lesmahagow,	11	11	...	...	...	...	...	4	...	4	...	1	...	...	...	1	1
Libberton,	1	1	...	...	1	...	...	...	1	1	...	...	...	1	...	1	1
Symington,	4	4	...	1	...	...	...	...	...	1	...	...	...	...	1	1	3
Wiston, &c.,	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Total,	75	75	...	3	3	2	2	12	5	21	4	5	1	2	2	14	20

Bungalow of 4 apartments, scullery and bathroom, &c., at Lanark Road, Braidwood.

Bungalow of 4 apartments, scullery and bathroom, &c., at Clyde Street, Carluke.

Two semi-detached workmen's cottages of two apartments, scullery and bathroom, &c., at Cleghorn Mill, Lanark.

Bungalow of 4 apartments, scullery and bathroom, &c., at Old Bridgend, Carluke.

Two-storied dwelling-house of three apartments, kitchenette, scullery, bathroom, and boxroom at Main Street, Carnwath.

Police station at Douglas, comprising two houses each of 4 apartments, scullery and bathroom, &c., office, and two cells.

Cottage of 4 apartments, scullery and bathroom, &c., at Braidwood, Carluke.

Cottage of 5 apartments, scullery and bathroom, &c., at Braidwood, Carluke.

Two semi-detached houses, each of 3 apartments, bathroom and kitchenette, at Brocketsbrae, Lesmahagow.

Bungalow of 4 apartments, scullery and bathroom, &c., at Wellbuttslea, Kirkfieldbank.

Bungalow of 4 apartments, scullery and bathroom, &c., at Pleasance, Kirkfieldbank.

Other plans submitted related to alterations and additions to existing buildings, &c., among which were the following:—

Erection of Y.M.C.A. Institute, with ante-rooms, &c., at Carstairs Junction; reconstruction and alterations at Cadzowhill Farm, Carluke, provision of bathroom, &c.; addition of classroom and cloakroom to Public School, Symington; addition of classroom and cloakroom to Public School, Kirkfieldbank, addition of porch, with water-closet and lavatory, at Burnside Cottage, Abington; erection of painting-shed and garage at Carluke; alterations and additions to existing house and provision of vestibule, scullery, and bathroom, at St. Charles' Institution, Carstairs Junction; erection of offices, &c., for New Colliery, Climpby; addition of maid's room at Manse, Carstairs Village; alteration to two cottages (semi-detached), providing one house of 4 apartments, scullery and bathroom, at Carnwath; addition of living-room and scullery to cottage at Leadhills; addition to existing billiard-room at Forth; erection of double and single shops for

Co-operative Stores, Kirkmuirhill; erection of motor garage and workshop at Carnwath; erection of motor garage at Forth; extension of Miners' Institute at Douglas, providing a library and gymnasium; erection of store and garage for buses at Kirkfieldbank; erection of temporary lavatory at Power Station, Lanark; addition to Thankerton Public Hall of billiard-room, ladies' room, &c., with conveniences; alterations and additions to Sornfallow Farm house, consisting of three bedrooms and a bathroom; addition of a storey to existing house, comprising two dressing-rooms, 2 bedrooms, and water-closet and extensions on ground floor of a vestibule, cloakroom, scullery, larder, coalcellar, and annexe to kitchen at Abington; erection of shop at Forth; additions to Eastwood Farmhouse, Lesmahagow, of 2 bedrooms and bathroom; additions to existing Police Station, Carnwath, of two bedrooms and a bathroom to each of the two houses; erection of motor garage, Symington; erection of garage at rear of Hotel, Crawford; erection of grain-store and offices at Loch Road, Lanark; alterations to shop at Carluke; erection of Miners' Institute with ante-rooms, kitchen and lavatories at Auchenheath; additions to Institute, comprising retiring-room, lavatory, and heating-chamber at Fence Rows, Kirkmuirhill; erection of temporary classroom and cloakroom at Public School, Douglas Water; additions to Miners' Institute, Douglas, of recreation-room, bowling-hall, lavatory, &c.; alterations to farmhouse at Upper Haywood, with provision of bathroom; addition of ladies' room and lavatory to Public Hall, Elvanfoot; addition of sculleries and water-closets to five houses at Rigside; additions and alterations to existing house providing milk-house, bake-house, boiler-house, garage, and bathroom at Sandy Road, Carluke; addition of kitchen and store-room to existing house at Carluke; alterations to farmhouse and out-buildings and erection of byre and meal-house at Elvanfoot; introduction of urinal at New Bush Inn, Carnwath; extension of existing garage to provide a wash-stance at Loch Road, Lanark; restoration of cottages destroyed by fire to form two dwelling-houses of three apartments and one of two apartments with sculleries and water-closets, Rigside; conversion of Old Mill, Robertson, into a public hall, with suitable retiring-rooms; conversion of upper-floor stable into ex-servicemen's club, with retiring-room and lavatory, at Lesmahagow; erection of dairy-scullery at Loch Road, Lanark; addition of vestibule, lavatories, and kitchen to Church Buildings, Carnwath; addition of two public rooms and four bedrooms, three

bathrooms and kitchen offices to existing residence at Symington; erection of Co-operative Store with back-shop, lavatory, and outside coal-cellar and petrol store at Carstairs Village; addition of wash-house to existing building at Coalburn Public School Hostel; installation of sediment tank and filters for disposal of sewage from Bellefield Sanatorium, Lanark; addition of sink and water-closet to one house and parlour and bathroom to another with coal-cellar and common washing-house, Carluke; erection of domestic science centre at Carluke Higher Grade School.

State-Aided Housing Schemes.—The appended table shows the progress of the various housing schemes completed or being undertaken by the District Committee under the subsidy schemes approved by the Scottish Board of Health:—

NOTE OF HOUSES BUILT AND IN COURSE OF ERECTION BY THE DISTRICT COMMITTEE UNDER THE VARIOUS SCHEMES.

Situation.	Houses Built under Addison (1919) Scheme.	Houses built under Scheme for Improve- ment of Insanitary Areas	Houses built under Scheme. Chamber- lain (1923)	Houses built under Housing (Finan- cial Pro- visions) Act, 1924.	Houses in course of erection under the Housing (Financial) Provisions Act, 1924.	Total Number of Houses Built or in course of Erection,
					2 Apartments.	
Auchenheath, -	20	...	...	...	...	20
Blackwood, -	52	...	...	16	...	68
Coalburn, -	84	32	...	12	...	128
Lesmahagow, -	106	...	...	40	...	146
Douglas, -	44	...	...	12	...	56
Ponfeigh and Rigside, -	42	...	24	44	12	122
Forth, -	58	40	...	40	...	138
Carluke, -	102	28	...	160	...	290
Law, -	46	...	...	32	...	78
Carstairs, -	14	...	...	24	...	38
Carstairs Junction,	50	...	...	52	...	102
Carnwath, -	...	...	12	24	...	36
Kirkfieldbank, -	...	...	...	8	...	8
Pettinain, -	...	...	...	8	...	8
Thankerton, -	...	...	...	8	...	8
Crawford, -	...	...	...	8	...	8
Glespin, -	...	...	...	16	...	16
Abington, -	...	...	...	6	...	6
Braidwood, -	...	...	...	8	...	8
Biggar, -	...	...	...	12	...	12
Symington, -	...	...	...	8	...	8
Totals, -	618	100	36	538	12	1,304

Housing (Inspection of District) Regulations, 1928.—The number of houses inspected during the year was 1,228. Of this number 24 were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.

Nine representations relating to 24 houses were made to the Local Authority with a view to the making of Closing Orders.

The number of dwelling-houses in respect of which Closing Orders were made was 24.

Eight dwelling-houses, the defects in which were remedied without either the making of Closing Orders or the serving of notices under Section 3 (1) Housing (Scotland) Act, 1925, were dealt with.

Two dwelling-houses were made into a fit state for habitation after the making of Closing Orders.

Housing (Scotland) Act, 1925.—The number of cases where intimations were given under Section 20 (1) as to insufficient water-closet accommodation :—

- (a) Cases where requirement complied with by owners, 85 water-closets;
- (b) Cases where works carried out by Local Authority after failure of owners to do so, nil; and
- (c) Cases still pending, 42.

One hundred and seventy-six houses of two apartments were erected by the District Committee during the year.

Housing—Improvement of Insanitary Areas Scheme.—The following table shows the progress made as at 31st December, 1928, with the closure and demolition in the years 1925, 1926, 1927, and 1928 :—

Parish of Carluke.

	Number of Houses in respect of which Orders made				Number of Houses Vacated				Number still Occupied	Number of Houses Demolished	Number of Houses Reconstructed
	1925	1926	1927	1928	1925	1926	1927	1928			
25 Clyde Street, -	1	...	...	...	1	...	...	...	...	1	...
Heather Row, -	6	...	...	...	6	...	...	...	...	6	...
39-45 Kirkton Street, -	4	...	...	...	4	...	...	...	...	...	4 as 1
66-70 Chapel Street, -	3	...	...	...	1	...	1	1	...	...	...
82-86 Chapel Street, -	3	...	...	...	2	...	1	...	...	...	...
119-123 Carnwath Road, -	3	...	...	...	3	...	...	...	...	...	...
Engine Row, -	7	...	...	...	7	...	...	...	...	7	...
Mauldsie Road, Law, -	2	...	...	...	2	...	...	...	...	2	...
Houses at Braidwood, -	...	...	4	...	...	...	2	2	...	4	...
House at Braidwood, -	...	...	1	...	...	...	...	1	...	...	...

Parish of Carnwath.

Haywood, -	55	...	...	...	20	26	6	...	3	52	3
Bank Row, Forth, -	6	...	...	...	5	...	1	...	...	6	...
Braehead (single house), -	...	...	...	1	...	...	...	1	...	...	...

Parish of Carstairs.

Haininghead, -	...	1	...	...	...	1	...	...	...	...	...
Eastend, Carstairs Village, -	...	...	...	6	...	...	...	3	3	...	...
Avenue Road, do., -	...	...	...	3	...	...	...	3	...	...	...
Church View, do., -	...	...	...	1	...	...	...	...	1	...	...
Forrest's Buildings, do., -	...	...	...	3	...	...	...	2	1	...	...
Smithy Row, do., -	...	...	...	2	...	...	...	2	...	...	...
Opposite Eastend Cottages, Carstairs Village, -	...	...	...	2	...	...	...	2	...	...	...
West Lamps, Carstairs Junction, -	...	...	...	3*	...	...	...	3*	...	...	...

Parish of Douglas.

New Row, Rigside, - - -	10
Store Row, Rigside, - - -	...	2	2	...	2

Parish of Crawfordjohn.

Overloun Cottage, - - -	...	1	1
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Parish of Lesmahagow.

Auchenbegg Row, Coalburn, -	6	6
Bankend Row, Coalburn, -	41	9	10	15	6	1	...
Sawdust Row, Coalburn, -	4	...	...	...	...	4	...	...	...
Brocketsbrae, - - -	6	...	...	6	...	...	...	...	6
Old Temperance Hotel, - - -	5	...	...	5	...	...	...	...	5 as 1
Old Schoolhouse, Kirkfieldbank, -	...	3	...	...	...	3	...	3	...
Littlegill Row, Auchenheath, -	...	16	...	...	...	...	3	13	...
Longlea Terrace, Auchenheath, -	...	25	...	...	...	...	6	19	...
Engine Row, Auchenheath, -	...	3	...	...	...	...	1	2	...
Townfoot Cottages, Auchenheath, -	...	2	...	...	...	...	...	2	...
Dublin, Kirkfieldbank, - - -	...	2	2*	...	...	...	2*	...	...
Main Street, Kirkmuirhill, - - -	...	4	4	...	...	...	4	...	...

Parish of Symington.

Townfoot, Symington, - - -	...	...	2	...	...	...	1	1	...
Total, - - -	152	11	57	29	77	37	33	44	58
	249			191			137		
							14		

* These houses closed voluntarily.

It was mentioned in last year's Annual Report that two houses forming part of Store Row, Rigside, which had been closed had been acquired by the Coltness Iron Company, Ltd. The Company submitted plans to the Local Authority showing improvements they were prepared to carry out to make the houses reasonably habitable, of which the Committee approved. It should be stated that there were five houses in this row, and the Company, during the year, provided a scullery with water-closet for each, making a marked sanitary improvement in the property, consequently the District Committee determined the Closing Order.

It will be noted that during the year 1925 41 houses were closed at Bankend Rows, Coalburn, and at the end of 1927 34 had been vacated. In 1928 other six houses were vacated and demolished, leaving one house occupied by a watchman employed by the contractor for the demolition scheme.

From the preceding table it will be observed that a Representation was made by the Medical Officer of Health for the closure of 25 houses at Longlea Terrace, Auchenheath, in the parish of Lesmahagow in November, 1927, and since that time six of the houses have been vacated.

Representation was made in respect of 16 houses at Littlegill Row, Auchenheath, also in 1927, three of which have been vacated. The owner in the latter case has had the property examined and reported upon by an architect with a view to making the houses reasonably habitable, but no definite scheme has yet been agreed upon and the Closing Order is still operative.

Housing (Scotland) Act, 1925, and Housing, Town Planning, &c. (Scotland), Act, 1919.—During the year under review much time was devoted to the inspection of properties for the purposes of obtaining information for the making of Closing Orders, but the question of providing water-closets, sinks, &c., to existing houses was not neglected, as will be seen from the detailed statement of sanitary conveniences introduced.

Special attention continues to be given to those areas which are special scavenging districts where the dry conservancy system is still in existence, and particularly areas where drainage facilities are now available.

The sanitary conveniences provided at the instance of the Public Health officials are detailed in the following tabular statement, and

indicate that during the year 90 water-closets were introduced to existing properties besides a considerable number of sinks.

Parish.	Locality.	Number of Tenants.	Water-closets.	Baths.	Wash-hand Basins.	Sinks.	Souleries.	Wash-houses.	Coal cellars.
Carluke,	Stewart Street, - - -	9	5	...	...	...	...	...	...
	High Street, - - -	1	1	...	...	...	...	...	...
	Market Place - - -	1	1	...	...	...	...	...	...
	Clyde Street, - - -	5	2	...	...	5	...	...	...
	58/64 Carnwath Road, -	8	2	...	...	...	...	...	...
	71/73 do. - - -	2	1	...	...	2	...	1	...
	Union Street, - - -	1	1	...	...	...	...	...	...
	Stewart Street, - - -	2	2	...	...	2	...	...	...
	Do. - - -	8	4	...	...	...	...	...	...
	Upper Braidwood, - -	1	1	1	...	1	...	...	...
	1, 3, 5, 7 John Street, -	4	2	...	...	4	...	...	...
	Carnwath Road, - - -	1	1	...	...	1	...	...	...
	Midloan St., Braidwood, -	1	1	...	...	1	...	...	...
	Thornton's Rows, Law, -	19	19	...	...	19	...	...	...
	57 Kirkton Street, - -	1	1	...	...	1	...	...	...
	Kirkton Avenue, - - -	6	2	...	...	6	...	...	...
	Bushelhead Farm, - - -	1	2	1	1	1	...	...	...
Carstairs,	Craighead Farm, Kiln-								
	cadzow, - - -	1	1	1	1	2	...	...	...
		72	49	3	2	45	...	1	...
Covington,	Eastend, - - -	1	1	1	1	...	...	...	...
	Village, - - -	2	2	...	...	2	...	...	...
	Do., - - -	1	1	...	...	1	...	...	...
	Do., - - -	3	2	...	...	3	...	...	...
		7	6	1	1	6	...	...	...
Covington,	Covington Mains, - -	1	1	1	1	...	...	...	...
Crawfordjohn,	Clydeview, Abington, -	1	1	...	1	...	...	...	...
Douglas,	Opposite Store Row, Rig-								
	side, - - -	2	2	...	...	2	...	...	...
	Sun Inn, - - -	1	1	1	1	...	...	...	...
		3	3	1	1	2	...	...	...
Lanark,	Craig Cottage, Cartland								
	Bridge, - - -	1	1	...	...	...	...	...	...
Lamington,	Eastertown, - - -	1	1	...	...	...	...	...	...
	The Hillies, - - -	1	1	...	...	...	...	...	...
	Hardington Mains, - -	1	1	1	1	...	...	...	...
		3	3	1	1	...	...	...	...

Tabular Statement.—*Continued.*

Parish.	Locality.		Number of Tenants.	Water-closets.	Baths.	Wash-hand basins.	Sinks.	Seouleries.	Wash-houses.	Coal-cellars.
Lesmahagow,	Lesmahagow—									
	Hamilton Road,	-	1	1	...	...	...	...	...	...
	Turfholm,	-	2	1	...	...	...	...	...	...
	Blackwood—									
	Hamilton Road,	-	1	1	...	1	1	...	...	...
	Coalburn—									
	Braehead,	-	1	1	1	1	...	...	...	...
	Main Street,	-	1	1	...	...	...	...	...	...
	Crossford—									
	U.F. Church,	-	1	1	...	1	...	...	...	...
	Kirkfieldbank—									
	Main Street,	-	1	1	...	...	1	...	...	...
	Do.,	-	1	1	...	...	...	...	...	...
	Do.,	-	1	1	...	...	...	...	...	...
	Do.,	-	1	1	...	...	1	...	...	...
	Do.,	-	1	1	...	...	1	...	...	...
	Do.,	-	1	1	...	...	...	...	...	...
	Wilson's Buildings,	-	4	1	...	...	...	...	...	...
	Linnville,	-	1	1	1	1	...	...	...	...
	Do.,	-	1	1	...	...	...	...	...	...
	Old Town,	-	1	1	...	...	...	...	...	...
	Greenlee Cottage,	-	1	1	1	...	1	...	...	...
	Clydeview,	-	3	3	...	...	...	...	...	...
	Old Town,	-	1	1	1	...	...	...	...	...
	Dublin,	-	1	1	...	1	...	...	...	...
	Yuill's Buildings,	-	4	2	...	...	...	...	...	...
	Ramoth,	-	1	1	...	...	1	...	...	...
			31	25	4	5	6	...	...	...
Symington,	Symington Mains,	-	1	1	1	1	1	...	...	...
	Upper Ward,	-	120	90	12	13	60	...	1	...

The Board's circular of 1st September, 1925, called upon Sanitary Inspectors to survey the more populous areas in their districts to ascertain

- (1) the number of common water-closets in use, showing separately the number serving 2, 3, 4, and 5 or more tenants respectively;

- (2) the number of houses without water supply and sinks inside the house; and
- (3) the number of (a) dry closets, (b) privy-middens, and (c) ash-pits, showing for each separately the number serving 2, 3, 4, and 5 or more tenants respectively.

As time permits this survey is being undertaken, and the details for the areas completed are given on page 161. The information for those areas not yet undertaken will be reported upon annually as the work is completed.

Sufficiency of Working-class Dwellings.—The following is a copy of a report by the Medical Officer of Health with regard to the sufficiency of working-class dwellings at Carstairs Village, Douglas, Douglas Water, and Littlegill, Auchenheath.

“CARSTAIRS VILLAGE.—In the village of Carstairs there are 17
“houses which are presently the subject of Closing Orders. These
“houses were inspected with a view to ascertaining if the tenants
“presently occupying them were willing to take new houses if these
“were provided. Three of the houses have already been vacated,
“one is used as a workshop and one is used as a summer-house by a
“tenant from Motherwell. Thus only 12 tenants require to be pro-
“vided for, two of whom stated that they were quite willing to take
“a new two-apartment house, and one expects to remove to another
“house shortly. The other nine tenants stated that they could not
“afford the rental of a new house.

“If 12 two-apartment houses were erected in Carstairs Village there
“would, no doubt, be plenty of tenants willing to take them, but
“there is no guarantee that a process of decanting would take place
“which would enable the tenants, who would be unsuitable occupants
“of the new houses or who could not meet the rents of these, to find
“reasonable accommodation in the houses which might be vacated by
“others.

“DOUGLAS.—In the village of Douglas there are only ten
“applicants for houses still to be dealt with. Of these, seven are
“occupants of houses at the present time, two are lodgers who intend
“getting married shortly, and the remaining one is a sub-tenant.

“We are, therefore, of opinion that there is no necessity for the
“Local Authority to provide any houses in this district in the mean-
“time.

	Carlisle.	Pontefragh.	Garstons Village.	Kirkfieldbank.	Carnwath.	Garstons Junction.	Law.	Blackwood and Kirkmuirhill.	Coalburn.	Douglas.	Leshmahagow.
Number of occupied houses,	- 1,484	258	134	210	231	274	393	331	400	342	643
Water closets—											
1 for each house,	- 807	255	75	56	156	194	158	146	232	161	368
Common to 2 tenants,	- 164	...	15	8	1	28	12	22	17	22	46
Do. 3 do.	- 39	...	8	2	6	...	3	22	9	10	36
Do. 4 do.	- 23	...	1	5	...	...	...	...	2	7	10
Do. 5 tenants and over,	3	...	...	1	...	...	...	...	1	2	4
Number of houses without water supply or sinks inside,	- 454	...	53	114	64	2	126	123	113	47	152
Number of houses with water supply and sink inside,	- 1,030	258	81	96	167	272	267	208	287	295	491
Number of houses with baths,	- 368	91	44	17	79	110	98	98	169	34	240
Privy-middens—											
1 for each house,	- 55	3	1	60	31	...	99	26	28	36	10
Common to 2 tenants,	- 29	...	...	5	3	...	7	6	28	12	5
Do. 3 do.	- 3	...	...	6	5	...	3	6	2	3	1
Do. 4 do.	- 5	...	...	3	...	...	15	2	...	...	...
Do. 5 tenants and over,	6	...	...	1	...	...	4	1	...	...	...
Totals—											
Common water-closets,	- 229	...	24	16	7	28	15	44	29	41	96
Do. privy-middens,	- 43	...	...	15	8	...	29	15	30	15	6

“ Enquiry was made as to what extent Messrs. Wilsons & Clyde Coal Company had been acquiring houses in Douglas village recently, and we were informed that this practice had ceased since the strike of 1925, although prior to that quite a number of houses were purchased by the Coal Company. On the date of inspection one house belonging to the Colliery Company in the village of Douglas was empty, and there was also an empty house at Douglas West.

“ DOUGLAS WATER.—On the date of inspection there were no empty houses in this locality, although there were ten houses in course of erection which will be ready for occupation shortly. We understand that two of these houses are likely to be allocated to Co-operative employees, who are presently staying in houses belonging to the Co-operative Society. The two houses in which they are presently residing are to be reconstructed into business premises.

“ There will also be two houses to let in Rigside when the Housing Scheme in that locality has been completed.

“ LITTLEGILL ROW, AUCHENHEATH.—The County Medical Officer and District Sanitary Inspector made representation to the District Committee on 19th December, 1927, in terms of Section 8 of the Housing (Scotland) Act, 1925, that the sixteen dwelling-houses known as Littlegill Row, Auchenheath, in the Parish of Lesmahagow, be closed on account of their uninhabitable condition, owing to serious sanitary defects in construction, want of repair, dampness, and the lack of proper sanitary and domestic conveniences.

“ The Local Authority agreed that a Closing Order should be made and a Sub-Committee of the Housing Committee visited the property on the 27th February, 1928, and confirmed the finding of the Public Health Committee that the Closing Order made on 19th December, 1927, be allowed to take effect.

“ On a remit from a Housing Committee the Medical Officer of Health and District Sanitary Inspector re-visited the sixteen houses at Littlegill Row, when the owner Mr. William Howie, was present.

“ Since the Closing Order became operative, repairs of a minor character have been effected in some of the more dilapidated houses, mainly consisting of roof repairs, plaster-work, and flooring.

“ These repairs have not remedied in any appreciable degree the
 “ general uninhabitability of the houses.

“ A careful inspection of each house was made along with the
 “ owner, and he was apparently satisfied that the eight houses form-
 “ ing the older part of the row should be closed as, on account of the
 “ excessive dampness of the walls, bed recesses, &c., it was
 “ impracticable to effect a remedy.

“ The question of renovating the six houses forming part of the
 “ main row which as stated in the Closing Order, appear to have been
 “ re-roofed some time ago, was next considered, and Mr. Howie was
 “ advised to have the roof made water-tight, to provide new rhones
 “ and conductors, to lay water on to each house, provide an earthen-
 “ ware sink (preferably in the small apartment, suitable for a
 “ scullery when provided with an opening window), and provide
 “ through ventilation.

“ It is desirable that water-closet accommodation should be pro-
 “ vided, but for the present four dry closets should be put into a
 “ proper sanitary condition, and the coal-cellars and ashpits also
 “ repaired.

“ A new drain laid along part of the front of the building to
 “ receive water from the rain conductors, and also a drain along the
 “ rear of the building to receive the sink-waste and rain conductors
 “ is necessary, and this together with the general repairs to the floors,
 “ walls, and ceilings, should render the houses reasonably habitable.

“ Before proceeding with the above-mentioned repairs, Mr. Howie
 “ promised to submit a plan showing in detail their extent.

“ With regard to the two houses built at right angles to the public
 “ road, if these are to be retained they would require to be entirely
 “ reconstructed and a plan submitted to the Committee showing the
 “ extent of such reconstruction.

“ Mr. Howie was advised to obtain the services of an architect for
 “ the reconstruction of these, and to make application for the subsidy
 “ under the Housing (Rural Workers) Act, 1926.”

Reconstruction Schemes.—Reference was made in last year's
 Annual Report to the properties known as Tinto View and Railway
 Terrace, Coalburn, comprising in all 34 dwelling-houses. These

houses are owned by Messrs. William Barr & Sons, Coalmasters, who at one time owned a large colliery in the vicinity. The colliery having been closed a few years ago and the coalmasters having no further need for the houses, they asked the District Committee to consider acquiring them. The District Engineer prepared estimates of cost for the repair of the houses and the introduction of modern sanitary conveniences, but the Scottish Board of Health did not approve of the necessary expenditure involved and the negotiations were terminated.

The Medical Officer of Health and myself had a meeting with Mr. William Barr, when the following proposals were made to him:—

- (1) That the outside stairs leading to the upper floor houses should be reconstructed;
- (2) that the sculleries be improved and modern earthenware sinks be provided to replace the existing cast-iron sinks; and
- (3) that the earth closets and ashpits be abolished and water-closets be provided in the proportion of one to two tenants.

Mr. Barr undertook to lay the matter before his co-directors and to communicate the result to the Medical Officer of Health. The following is a copy of the letter received from the Company:—

“ Allanton Colliery,
“ Hamilton, 30th October, 1928.

“ Dr. J. HUME PATTERSON,
“ County Offices,
“ Hamilton.

“ DEAR SIR,

“ We refer to your recent call here with Mr. Paterson, the District Sanitary Inspector for the Upper Ward, regarding our properties at Coalburn. These properties, as you are aware, were offered to the County Council at a very low figure because of the fact that we have no longer any direct interest in that area. The proposition was really accepted by your Council, but it would appear, to us anyway, that the Scottish Board of Health did not consider that they were worth spending any money on and so the sale fell through.

That being so, it strikes us as being somewhat extraordinary that you should now come along and ask us to spend a considerable amount of money on these houses. The subscriber formed the impression during the interview, he thinks rightly, that it would be in the interest of the County Council, as also our own, that as many of these houses as possible be closed down. With that object in view we have taken steps to have a number of the tenants removed so that we can as a start reduce Tinto View Terrace from 16 tenants down to 4. It is our intention to proceed along these lines and not to spend money on houses which, as already stated, we have no further interest in.

“Yours truly,

“WM. BARR & SONS (Coalmasters), LTD.

“(Sgd.) W. BARR, Director.”

Overcrowding.—There is no overcrowding of a serious nature to report.

WATER SUPPLY.

SPECIAL WATER SUPPLY DISTRICTS.

There are 16 special water supply districts in the Upper Ward, viz. :—

- | | |
|--|-----------------------------------|
| 1. * Blackwood. | 9. Forth. |
| 2. * Braidwood. | 10. * Kirkfieldbank. |
| 3. * Carluke. | 11. * Law. |
| 4. * Carnwath and Carstairs
Junction. | 12. * Lesmahagow and
Coalburn. |
| 5. * Carstairs Village. | 13. * Ponfeigh. |
| 6. * Crawford. | 14. Roberton. |
| 7. * Crossford and Hazelbank. | 15. Symington. |
| 8. Douglas. | 16. * Thankerton. |

The trunk mains which traverse the Upper Ward District, and belonging to the Motherwell and Wishaw Water Commissioners, the Airdrie and Coatbridge Water Commissioners, and the Middle Ward District Committee of the County of Lanark respectively, supply 12 of the above-mentioned districts either wholly or partially. Such districts are marked by an asterisk (*) in the above list.

The question of obtaining a water supply which would serve the whole or the greater part of the Upper Ward area was considered during the year, and a formal report regarding the matter was submitted by the District Engineer :—

“ District Engineer’s Department,
 “ District Offices,
 “ Lanark, 13th April, 1928.

“ To the Chairman and Members of the
 Upper Ward District Committee
 of the County of Lanark.

“ GENTLEMEN,

“ As instructed by you, I beg to submit a report on the various probable water supplies for the Upper Ward. There are three different waters, each of which can be tapped at a sufficient height to be available for the water supply of the greater part of the Upper Ward, provided the chemical analyses of the samples taken prove satisfactory. Each of the three possible sources of supply have been visited and thoroughly examined several times since the last meeting of the Committee by the District Sanitary Inspector and myself.

“ The first is the River Medwin, which could be tapped about $3\frac{1}{2}$ miles above the village of Dunsyre. The water from this source would be available for Dunsyre, Newbigging, Kaimend, Carnwath, Carstairs Junction, Carstairs Village, Braidwood, Crossford, Hazelbank, Carluke, and Law. The total length of this pipe track would be approximately 19 miles.

“ In the event of a reservoir being required here, the ground is naturally very suitable for the purpose, but owing to the inaccessibility of the site on the moor it would be very expensive to construct. Further, I am doubtful if the quantity would, in a dry season, be sufficient to afford a satisfactory supply.

“ I estimate the probable cost of laying a 12-inch cast-iron pipe from the intake to Carluke Service Reservoir at a sum not exceeding £83,859, and, alternately, I estimate the probable cost of laying a 15-inch cast-iron pipe at a sum not exceeding £106,561.

“ I have calculated that the quantity of water that would be delivered through the 12-inch pipe at Carluke Reservoir at 652,000 gallons per day, while the quantity of water delivered by the 15-inch pipe would be 1,340,000 per day. It will be noted that this is more than double the amount.

“ The second probable source of supply is the River Elvan. This river could be tapped at a point $1\frac{3}{4}$ miles above the point where the Elvan joins the river Clyde. The water from this source would be available for Crawford, Abington, Robertson, Symington, Thankerton, Carstairs Junction, Carstairs Village, Crosslaw, Kirkfieldbank, Braidwood, Hazelbank, Crossford, Carluke, and Law. The total length of this pipe track would be approximately 31 miles. The formation of the ground at the intake is ideally suited for the construction of a reservoir, the cost of which would be considerably less than at either of the other sites, owing to the proximity of the road and railway and also to the abundance of suitable material on the site. I am of the opinion that the supply from this source would at all times be sufficient.

“ I estimate the probable cost of laying a 12-inch cast-iron pipe from the intake to Carluke Service Reservoir at a sum not exceeding £128,079, and, alternately, I estimate the cost of laying a 15-inch cast-iron pipe at a sum not exceeding £158,255.

“ I have calculated that the quantity of water that would be delivered through the 12-inch pipe at Carluke Reservoir at 528,336 gallons per day, while the quantity delivered by the 15-inch pipe would be 1,056,000 gallons per day. This shows practically twice the quantity delivered by the 12-inch pipe.

“ The third probable supply would be from the River Snar, which could be tapped at a point about $\frac{3}{4}$ of a mile above the Snar farm. The water from this source would be available for the same places as that from the Elvan, with the exception of Crawford and Abington. The total length of the track would be approximately $28\frac{1}{2}$ miles.

“ The ground in the vicinity of the intake is not so suitable for the construction of a reservoir as that at the two first-mentioned schemes, although this could be got over at not too excessive a cost. The quantity of water available from this source seems abundant.

“ I estimate the probable cost of laying a 12-inch cast-iron pipe from the intake to Carluke Reservoir at a sum not exceeding £118,955, and, alternatively, I estimate the cost of laying a 15-inch cast-iron pipe at a sum not exceeding £152,513.

“ I have calculated that the quantity of water that would be delivered through a 12-inch pipe at Carluke Reservoir at 580,656 gallons per day, while the quantity delivered by the 15-inch pipe would be 1,128,000 gallons per day, being slightly less than twice the quantity delivered by the 12-inch pipe.

“ The River Duneaton is also a river with an abundant quantity of water, but at the point where it would be necessary to construct the intake, so as to give a sufficient ‘ head ’ to deliver the water in Carluke, the river is very much diminished, with a consequent reduction in the available supply, while the distance added to the track would be six or seven miles more than that necessary for the Snar scheme.

“ In regard to the proposal to take a connection from the Middle Ward Camps supply, the stipulated quantity available is only 150,000 gallons per day. This is quite inadequate for Carluke alone. Further, it is not a practical proposition to bring the pipe by the nearest route to Carluke, *i.e.*, over Crossford Bridge, as the pressure at this point would be too great, the water having to rise from there a height of 630 feet to Carluke Reservoir.

“ I am of the opinion that the water available from this source will in a very short time all be required for Ponfeigh, Lesmahagow, and Blackwood.

“ The population of the various villages which can be supplied from the proposed new scheme is approximately 13,000. In computing the approximate daily consumpt I have allowed 50 gallons per head per day, giving a total daily consumpt of 650,000 gallons. This may appear a generous allowance, but in view of the very large number of tomato-houses in the district it cannot well be less. It will be noticed that only in the first-mentioned scheme (river Medwin) is the 12-inch pipe capable of delivering this quantity, and there the continuity of the supply is doubtful.

“ In each of the schemes it is a point worth considering that the difference between the cost of laying a 15-inch and a 12-inch pipe is comparatively small, in view of the enormous difference in the quantity of water delivered.

“ The point of delivery at Carluke Service Reservoir is 800 feet above Ordnance Datum.

“ I would advise that should the Committee propose to consider one or other of these schemes, it would be well to put on water-gauges during the summer months from which readings should be taken at least twice a week.

“ I am, GENTLEMEN,

“ Your obedient Servant,

“ (Sgd.) JOHN M'CLEMENT,

“ *District Engineer.*”

Five samples of water were taken for analysis from the above sources, and the following report was received from the County Chemist, viz. :—

“ ANALYSES OF FIVE SAMPLES OF WATER RECEIVED ON 11th APRIL, 1928, FROM W. PATERSON, ESQ., DISTRICT OFFICES, LANARK.

“ Sample No. 1.—The Westwater, at a point before its junction with the River Medwyn in the Parish of Dunsyre :—

Clear, trace greyish fibrous deposit.

“ Sample No. 2.—River Medwyn, 600 yards above Medwynbank at a point where the mill lade is taken off :—

Clear, few specks brown fibrous deposit.

“ Sample No. 3.—Elvan Water, at a point below Hass Farm in the Parish of Crawford :—

Almost clear, trace greyish fibrous deposit.

“ Sample No. 4.—Streamlet as joining Elvan Water, at a point above North Short Cleugh, and below Hass Farm :—

Slightly turbid, considerable greyish brown fibrous deposit.

“ Sample No. 5.—River Snar, at a point 500 yards above Snar Farm in the Parish of Crawfordjohn :—

Very turbid, highly coloured, and contained a large quantity of brownish fibrous deposit.

“ This sample was not worthy of analysis, and should be repeated under more favourable weather conditions.

				Results. Stated as Parts per 100,000.			
				No. 1.	No. 2.	No. 3.	No. 4.
Chlorides as Cl,	...	...	...	1·1	1·3	0·8	0·8
Nitrites as Nitrogen,	...	...	...	Nil	Nil	Nil	Nil
Nitrates do.,	...	...	...	Trace	Trace	Trace	Trace
Ammonia Free as Nitrogen,	...	...	...	·0008	·0003	·0006	·0003
Do. Albuminoid as Nitrogen,	...	...	...	·0017	·0008	·0025	·0024
Oxygen Absorbed (4 hours).	...	...	...	·12	·17	·29	·32
Total Hardness,	...	...	...	14·0	13·3	3·25	3·25
Solids: Total,	...	...	...	14·8	14·0	4·8	4·6
Do. Volatile,	...	..	..	4·2	4·6	1·6	1·4
Alkalinity as CaCO ₃,	...	...	...	14·4	13·8	2·3	2·3
Colour: Platinum Standard,	...	...	...	1·0	1·2	1·5	2·0

“ These results indicate that waters Nos. 1 and 2 are of similar composition, and Nos. 3 and 4 also of similar composition. The main difference between these two classes is one of hardness. Nos. 1 and 2 are hard waters, while 3 and 4 are very much softer. All are free from nitrogenous organic pollution.

“ (Sgd.) WALTER BROWN,
Chemist.

“ Chemical Laboratory,

“ County Offices,

“ Hamilton, 17th April, 1928.”

The matter was still under consideration at the close of the year.

As a special report giving full details of each District was made in my Annual Report for 1927, and as the circumstances are practically the same, I do not propose on this occasion to report on each special water district separately.

Carlisle.—As mentioned in my last Annual Report, the Medical Officer of Health recommended that the water from the Bore spring be filtered before discharging into the tank at Coldstream, and in

this manner prevent a large amount of deposit from entering the pipe line to be stirred up and brought into circulation at every variation of pressure over the system. A sample was taken for analysis from the inlet pipe to the Coldstream tank, and reported to be still in an unsatisfactory condition. The local committee having fully considered the matter, instructed the District Engineer to introduce the necessary sand filters, and at the close of the year the work was well in hand.

Symington.—Since the formation of a special drainage district and the consequent introduction of modern sanitary conveniences to almost all the properties, the existing water supply of 20,000 gallons per day (which is drawn from the private supply at St. John's Kirk) proved insufficient, especially during the summer months, and in particular the supply to the Tinto Hotel, which is situated at the highest point of the service pipe. The Committee, in their original agreement with the late Mr. Waugh of St. John's Kirk, made provision to acquire an additional 10,000 gallons per day should they at any time require same. The District Clerks have been in communication with the Superior's law agents with a view to the latter part of the arrangement being completed, but on account of a change of ownership considerable difficulty has been met with and no definite arrangement has yet been made.

During the year a Sub-Committee was appointed on special water supply districts to confer with the various Water Commissioners, from whom a large quantity of water is purchased by meter for the supply in whole or part of 12 of the special water supply districts in the Upper Ward.

At a meeting of the above Sub-Committee with representatives of Motherwell and Wishaw Water Undertakings, Mr. R. Bryce Walker, District Clerk, explained that for some time past there had been a growing demand for water in the 12 special water districts above-mentioned, not only for domestic consumption, but also for non-industrial purposes, such as tomato-growing, and the result had been that increasingly large draughts were being made on the water mains belonging to the Water Commissioners. The District Committee were desirous at this stage of ascertaining whether the Water Commissioners were in a position to give any assurance that the present supplies would be continued for some time and that, if necessary,

additional quantities of water could be obtained for the special districts.

After some discussion, it was agreed that the Water Engineers concerned should consult together and, if possible, devise an arrangement which would be satisfactory to the Local Authorities concerned.

Roadmeetings Hospital.—In connection with a complaint regarding the corrosion in the iron pipes, two samples of water were examined from the Yieldshields supply and the Coulter supply. The alkalinity of these samples was found to be slightly above the safety limit, and it was impossible to state what action these supplies would have on the pipes.

Pettinain.—Complaint was made as to the character of the water supply at Pettinain. Investigations were carried out by the Medical Officer of Health and the Sanitary Inspector, and 4 samples were taken for analysis. The water was reported to be of very low alkalinity, and a recommendation was made for the treatment of this water supply by limestone.

PRIVATE SUPPLIES.

Nether Fingland Burn, Elvanfoot.—On receipt of a complaint from the tenant at the cottage at above, a sample of the domestic water supply was procured for analysis, when it was found to be satisfactory in every respect and of great purity.

Teaths Cottage, Kirkfieldbank.—A proposal to renovate the ploughman's cottage at Teaths Farm, Kirkfieldbank, and introduce a gravitation water supply to modern sanitary conveniences was made early in the year and a sample of water was obtained from a spout at the roadside for analysis. It was found to be suitable for the purpose.

Easthills, Dunsyre.—Complaint was made by the tenant of Easthills, Dunsyre, about the turbid condition of his private water supply. On analysis the water was found to be free from pollution but in need of filtration. The supply was abandoned and an alternative supply procured from the Bathgate main, which is conveniently situated to the farm.

Melbourne Farm, Biggar.—The water supply to this farm is obtained from a spring situated in a disused road-metal quarry

belonging to the Upper Ward District Committee. The Road Surveyor had no occasion to work this quarry for several years past, but desires to resume operations, and it was thought that the water supply would be interfered with on this account. An alternative supply was obtained clear of the quarry workings, and, after analysis, proved that it was suitable for domestic purposes, it was allowed to gravitate to the farm in place of the original supply.

Stoneypath, Dunsyre.—Complaint was made from the tenant of Stoneypath that the water supply was polluted. The supply was procured from a spring, and a sample being analysed indicated that the water was of sufficient purity for domestic purposes.

Weston Cottages, Dunsyre.—The supply for domestic purposes to the above cottages was alleged to be impure, and on analysis it was found that the supply was liable to pollution. On communicating with the Superior's agents it was recommended that a supply be obtained from the Bathgate main, which passes convenient to the houses.

Pleasance, Kirkfieldbank.—It was proposed to build a bungalow on the lands of Pleasance, Corehouse, Kirkfieldbank, and a sample was procured by way of finding a suitable water supply for domestic purposes. On analysis, however, it was found to be of doubtful purity.

Rainfall.—The following is a statement of the rainfall for the past ten years, as recorded at Coldstream Reservoir, Carluke:—

Year.						Rainfall in Inches.
1919,	-	-	-	-	-	31·85
1920,	-	-	-	-	-	38·75
1921,	-	-	-	-	-	39·70
1922,	-	-	-	-	-	30·15
1923,	-	-	-	-	-	38·65
1924,	-	-	-	-	-	31·90
1925,	-	-	-	-	-	35·00
1926,	-	-	-	-	-	39·80
1927,	-	-	-	-	-	48·60
1928,	-	-	-	-	-	45·80

Average for the 10 years, 38·02 inches approximately.

DRAINAGE.

SPECIAL DRAINAGE DISTRICTS.

There are 15 special drainage areas in the Upper Ward District, and these comprise the following:—

Blackwood and Auchenheath.	Crosslaw.
Braidwood.	Douglas.
Carluke.	Kirkfieldbank.
Carnwath.	Law.
Carstairs Village.	Lesmahagow.
Coalburn.	Ponfeigh.
Crossford and Hazelbank.	Symington.
Thankerton.	

There is no change in the particulars given in last year's Annual Report regarding the special drainage districts.

OTHER THAN SPECIAL DISTRICTS.

Crawford.—During the summer months a nuisance was complained of which emanated from the two septic tanks which receive sewage from several residential houses and the Public-House Trust Hotel, situated at the west end of the village.

The volume of sewage dealt with has increased considerably during the past few years, and the time is now opportune when suitable drainage facilities with the provision of a septic tank of sufficient size to deal with the increased volume be introduced.

In other parts of the village there are several tanks with outfalls to the river Clyde, but the effluent therefrom is not satisfactory.

The matter was reported to the Local Authority, and the District Clerk was instructed to communicate the terms of the complaint to the Clerk of the Local Committee. Later a requisition was prepared, but up to the time of reporting this requisition had not been presented to the District Committee.

SCAVENGING.

SPECIAL DISTRICTS.

There are 15 special scavenging areas in the Upper Ward District, and, while no addition to the number is noted during the year, the boundaries of Crosslaw Special Scavenging District were extended so as to embrace Kingsonsknowe in the Parish of Lanark.

The districts are enumerated as under :—

- | | |
|--|--------------------------|
| 1. Blackwood and Kirkmuirhill
(which includes Auchenheath). | 8. Douglas. |
| 2. Carluke. | 9. Forth and Wilsontown. |
| 3. Carnwath. | 10. Haywood. |
| 4. Carstairs Junction. | 11. Kirkfieldbank. |
| 5. Carstairs Village. | 12. Law. |
| 6. Coalburn. | 13. Leadhills. |
| 7. Crosslaw. | 14. Lesmahagow. |
| | 15. Ponfeigh. |

LIGHTING.

SPECIAL LIGHTING DISTRICTS.

There has been no addition during the year 1928 to the number of special lighting districts enumerated in last year's Annual Report.

The districts are as follows :—

- | | |
|----------------|-------------|
| 1. Carluke. | 3. Douglas. |
| 2. Crosslaw. | 4. Law. |
| 5. Lesmahagow. | |

There is nothing of interest to report regarding any of the five lighting areas, a full service having been maintained throughout.

Special Districts.

The special districts for the purposes of water supply, drainage, scavenging, and lighting are shown in the following table. The rates of assessment (half-proprietor, half-tenant) for the year 1928-29 are also shown. A blank in the assessment column means that no district has been formed for the special purposes indicated :—

District.	Water.	Drainage.	Scavenging.	Lighting	Total Assessment.
Blackwood, ...	1/1	2/-	5d.	...	3/6
Braidwood, ...	1/8	10½d.	...	...	2/6½
Carluke, ...	1/1	9½d.	4d.	3d.	2/5½
Carnwath, ...	1/6	11d.	6d.	...	2/11
Carstairs Junction, ...	1/6	...	4½d.	...	1/10¼
Carstairs Village, ...	2/2	11d.	6d.	...	3/7
Crawford, ...	1/2	...	*	...	1/2
Crossford and Hazelbank, ...	1/4	4½d.	...	...	1/8½

*District formed but not yet in operation.

Tabular Statement.—*Continued.*

District.	Water.	Drainage.	Scavenging.	Lighting.	Total Assessment.
Crosslaw, ... ..	...	2d.	4d.	5d.	11d.
Douglas,	1/4	4½d.	6d.	3½d.	2/6
Forth,	1/8	...	5d.	...	2/1
Haywood, ... ..	...	...	5d.	...	5d.
Kirkfieldbank,	1/3	1/3	*	...	2/6
Law,	4½d.	4½d.	3d.	3½d.	1/3½
Leadhills, ... ..	...	...	6d.	...	6d.
Lesmahagow,	1/1	1/7½	5d.	1½d.	3/2
Coalburn,	1/1	2/-	3d.	...	3/4
Ponfeigh,	2/7	11½d.	7d.	...	4/1½
Roberton,	2/-	...	...	...	2/-
Symington,	1/8	1/6	...	...	3/2
Thankerton,	10d.	2d.	...	...	1/-

* District formed but not yet in operation.

Nuisances.

57 complaints were received in the course of the year. The subject of complaint in each case was carefully enquired into, and where necessary, steps were taken to secure the discontinuance or abatement of the nuisance.

In addition to the above, there were many inspections made with a view to the detection of nuisances, and as a result 123 intimations were served from the office under Section 19 of the Public Health (Scotland) Act, 1897.

In many instances the existence of nuisances was brought to the notice of the authors verbally and remedial measures carried out without further intimation. In no case was it found necessary to have a statutory notice under Section 20 of the Public Health (Scotland) Act, 1897, served in respect of the non-abatement of any nuisance.

An anonymous letter received by the Scottish Board of Health for Scotland alleging certain insanitary conditions of the Huts, Climpby, occupied by navvies who are employed by a contractor, was communicated to us, with a request for a report by the Sanitary Inspector thereon.

The following report was submitted :—

“ In accordance with the Department’s request for a report on the sanitary condition of the Huts at Climpby, Forth, I beg to append the following information :—

“ The huts are more or less of a temporary nature, and were erected about eight months ago to provide accommodation for about forty men who are employed by Messrs. Wilson, Kinmond, & Marr, Ltd., Contractors, 4a Fairlie Park Drive, Partick, who are laying down a permanent-way to a colliery which is being sunk by the Coltness Iron Company, Ltd.

“ The huts are constructed of Government hutment material (Nisson type), and at the time of inspection were found to be in a clean state. The beds and bedding in the huts have been examined on several occasions, but no evidence of vermin was found.

“ I had occasion to meet County Councillor Dr. John Reid, who is medical attendant at the Huts (the occupants of which sometimes call at his consulting rooms), and he states that on no occasion has he seen any trace of vermin either on the beds, &c., or on the men’s wearing apparel.

“ The bed sheets are changed weekly, and I am satisfied that the Contractors have made every arrangement to keep the huts in a sanitary condition.

“ There are two sleeping huts provided with single beds and accommodating in all about forty men. A cook-house, dining accommodation, and ablution shed with an ample water supply for all purposes, together with suitable accommodation for a caretaker and his wife are also provided.

“ At the time of the inspection the men were in the huts and each man was asked if he had any complaint to make, but all replied in the negative.

“ I may state for the information of the Department that I had a communication on the 3rd September, 1927, from the District Sanitary Inspector of the Middle Ward of Lanarkshire, making complaint on behalf of a lodging-house keeper at Shotts, to the effect that men coming to his lodging-house for the week-ends, from Climpby, polluted his premises.

“ Careful investigation showed that the complaint was groundless, and I understand that the said lodging-house keeper’s grievance is that the men are not motored to his lodging-house, but housed at Climpby.”

Coal Mines Act, 1911.

No notice was received from H.M. Inspector of Mines regarding the discontinuance or abandonment of any mine.

Schools.

There are 51 public schools in the Upper Ward District. In the course of the year many visits were paid to these in connection with the occurrence of infectious sickness.

The following improvements were carried out during the year:—

Conversion of earth-closets into water-closets at Carstairs Village Public School; addition of classroom and cloakroom to Public School, Symington; erection of temporary classroom and cloakroom at Public School, Douglas Water; addition of wash-house to existing building at Coalburn Public School Hostel; erection of domestic science centre at Higher Grade School, Carluke.

Workshops.

232 inspections were made to workshops in the Upper Ward District during the year. No notices were received from H.M. Inspector of Factories. During inspections want of cleanliness was observed in eight cases, and other nuisances numbered three. Notices were served upon the occupiers of the workshops, and the conditions complained of were remedied.

No lists of out-workers were received during the year.

Food and Drugs.

The administration of the Sale of Food and Drugs Acts is undertaken by the County Council, and full information as to the samples taken for analysis and other work done will be found in the County Report.

Rivers Pollution.

The administration of the Rivers Pollution Prevention Act is undertaken by the County Council, and information as to the action taken will be found in the County Report.

Burial Grounds.

No complaint was received during the year regarding any burial ground in the district.

Three interments were carried out at the instance of the Local Authorities under Section 69 (1) of the Public Health (Scotland) Act, 1897, at a total cost of £10 9s. 6d., of which 7s. 6d. was recovered.

Accommodation for Seasonal Workers.

66 intimations were received during the year of the intention to accommodate seasonal workers, this number being slightly less than that received last year.

Each farm was visited, and it was found that the By-laws were being fairly well adhered to and in no case was it necessary to take legal proceedings against any employer or farmer for any infringement.

Most of the farmers in the district who are in the habit of housing seasonal workers now make a practice of limewashing the premises in good time before the arrival of the workers, and also provide bed trestles, which can be stored when not in use. The closet accommodation for the sexes is of a portable type, and can therefore be stored when not in use.

This greatly facilitates the work in connection with the administration of the By-laws.

Milk and Dairies (Scotland) Act, 1914.

The particulars regarding the dairying industry in this district were answered in full in my Annual Report of 1927, and as there is little or no change in the general circumstances, it is not considered necessary to repeat this information. It might be stated, however, that a complete list of the dairy farms where alterations and improvements have been executed to meet the requirements of the Milk and Dairies (Scotland) Act, 1914, and the By-laws made under Section 8 of the Act, is appended.

The dairy premises of 54 farms have been brought up to modern standards, and while it is realised that there is still a considerable number yet to be brought up to date, the difficulty of the Public Health staff is to get large numbers improved immediately, having regard to the fact that the bulk of the 610 registered dairies in the district are owned by a few superiors. It will be understood that this can only be accomplished gradually, and this is the persistent policy of the Department.

An outstanding case might be mentioned where legal proceedings were instituted by the District Committee against the superiors of the under-mentioned farm in pursuance of structural improvements required at the dairy premises.

The result of the case was still pending at the close of the year.

The following is a report on the necessary improvements required at Robiesland Farm Dairy premises :—

“Single Byre.—This byre is constructed of stone and lime with slated roof, and in my opinion is capable of being improved internally to meet the requirements of the By-laws. The walls are unplastered, and should be covered to a height of not less than four feet from the floor with a smooth impervious material, such as cement plaster, so as not to absorb or retain moisture and to facilitate cleansing. The wall-heads should be beam-filled to prevent the lodgment of dust.

“The existing inlet ventilators are at too great a height to function effectively, and should be lowered considerably. It is also necessary that proper outlet ventilation be provided at the ridge of the roof to maintain effective ventilation.

“The existing stone feeding-troughs are unsatisfactory and should be replaced by troughs of a smooth, impervious material, and any space adjacent to the troughs that cannot be readily cleansed should be filled with a smooth cement.”

“The existing trevasses are of wood, many of which are in a state of disrepair, and I would suggest that these be replaced by concrete trevasses.

“The settles are at present 10 feet long, and great difficulty is experienced in keeping the animals clean. This difficulty could be greatly minimised by shortening the settles to suit the type of animals stalled.

“Double Byre.—This byre is similar in construction to the single byre in that it is built of stone and lime with slated roof. The walls are also unplastered and should be covered with a smooth, impervious material to a height of four feet, and the wall-heads should be beam-filled to prevent the lodgment of dust.

“The settles here are too short and the grips are in a state of disrepair. To remedy this and provide a double-byre of dimensions conforming with the By-laws one of the walls could be taken back far enough to give the necessary width for settles, grips, and walk.

“Milk Store.—The floor of the milk store is presently constructed of stone slabs which are of uneven surface, damp, and difficult to keep clean. This flooring should be well paved with concrete, granolithic, or other material approved by the Local Authority and so constructed as to be impervious to water or other liquid.

“The wooden benches in the milk store are unsatisfactory, and I would suggest that they be replaced by cement benches which are capable of being easily cleansed.”

MILK AND DAIRIES (SCOTLAND) ACT, 1914.

(Continued.)

Dairy Premises where Alterations and Improvements were carried out to meet the requirements of the By-laws.

Parish of Biggar.

Hillridge Farm.—Byre reconstructed. New concrete floor and trevasses. Walls plastered to wall-heads. Wall-heads beam-filled. Trussed roof. Inlet and outlet ventilation (Morton's Patent Ventilators). Additional light. Water bowls.

Burghmuir Farm.—Concrete trevasses installed in place of wooden stakes. Troughs re-set. Walls plastered to height of 4 feet. Ventilation improved by provision of inlet ventilators and the opening of the ridge 2 inches for outlet ventilation.

Stane Farm.—Byre reconstructed. New concrete floor allowing maximum width for central passage and grips. Concrete trevasses. Walls plastered and also heightened by introduction of steel frame-work taking glass. Girder roof with asbestos-sheet covering. Opening glass ridge. Water bowls. "Cleena" sterilizing outfit introduced.

Brownsbank Farm.—Byre reconstructed to give maximum width for passage and grips. New concrete floor and trevasses. Inlet ventilators. Trussed roof with opening ridge for outlet ventilation. Walls plastered and beam-filled.

Parish of Carlisle.

Whiteshaw Farm (Grade A T.T. Licence).—Trussed roof provided with glazed opening ridge. Inlet ventilators. Walls beam-filled. "Cleena" sterilizing outfit installed.

Cadzowhill Farm.—New concrete trevasses. Trussed roof with 2-inch opening for outlet ventilation. New inlet ventilators. Walls beam-filled. New concrete floor in milk store.

The Hill, Kilncadzow (Certified Licence).—Reconstruction of byre to provide central passage and grips of maximum width. New concrete trevasses. Trussed roof with glazed opening ridge. Inlet ventilators. Water bowls. "Cleena" sterilizing outfit.

Hyndshaw Farm.—New concrete trevasses. Ridge opened 2 inches for outlet ventilation. Water bowls.

Blythbank Farm.—New concrete floor and trevasses. Inlet and outlet ventilators provided.

Bushelhead Farm.—New concrete floor and trevasses. Walls plastered to wall-heads and beam-filled. Trussed roof with opening glass ridge. New inlet ventilators. "Cleena" outfit. Reconstruction of dairy scullery and milkhouse.

Stockwell Farm, Braidwood.—New concrete trevasses. Inlet and outlet ventilators. New milk store.

Woodhall Farm, Braidwood.—New concrete trevasses. Inlet and outlet ventilators.

The Hole, Kilncadzow.—New concrete floor and trevasses. Walls plastered and beam-filled. Inlet and outlet ventilation improved.

Parish of Carmichael.

Harleyholm Farm (Grade A T.T. Licence).—New concrete trevasses. Walls plastered to wall-heads and beam-filled. New inlet ventilators through wall. Trussed roof with glazed opening ridge. Reconstruction of dairy scullery. "Cleena" sterilizing outfit.

Warrenhill Farm.—New inlet and outlet ventilators provided (Weir's type).

Parish of Carnwath.

Hillhead Farm, Auchengray.—New concrete floor and trevasses. Walls plastered to wall-heads and beam-filled. Outlet and inlet ventilators provided.

Pool Farm, Auchengray.—New concrete trevasses. Walls plastered to height of 4 feet and beam-filled. Inlet and outlet ventilators.

Westeryardhouses Auchengray.—New inlet and outlet ventilators provided.

Brewshot, Carnwath.—Trussed roof with 2-inch open ridge, for outlet ventilation. New concrete floor and trevasses. Inlet ventilation.

Parkhead, Braehead.—New single byre, brick-built. Ridge open 2 inches for outlet ventilation. Walls plastered and beam-filled. Concrete trevasses and floor.

Broomhill Farm.—Byre reconstructed to give maximum width for central passage and grips. Walls plastered to a height of 4 feet and beam-filled. Trussed roof with opening glazed ridge. New inlet ventilators.

Parish of Carstairs.

Corbiehall Farm.—Byre reconstructed to meet the requirements of dairy bye-laws. Concrete floor and trevasses. Walls plastered to wall-heads and beam filled. New trussed roof with 2-inch opening at ridge for outlet ventilation. Lighting improved. Inlet ventilators. New troughs and water bowls.

Mossplatt Farm (Grade A Licence).—New dairy scullery. "Cleena" sterilizing outfit.

Throughburn Farm.—Inlet and outlet ventilators provided.

Harelaw Farm.—New concrete floor and trevasses.

Lampits Farm.—Reconstruction of byre (after fire). New trussed roof with 2-inch opening at ridge for outlet ventilation. New inlet ventilators. Walls plastered and beam-filled.

Parish of Lamington.

Lamington Mains.—Inlet ventilation improved and additional light provided.

Parish of Lanark.

Fullwood Farm.—New concrete trevasses. Inlet and outlet ventilators.

Cartland Mains.—Walls plastered to a height of 4 feet.

Parish of Lesmahagow.

Blackwoodside Farm.—New byre (brick-built) to meet requirements of By-laws. Opening glazed ridge.

Johnshill Farm.—New byre (stone-built) to meet requirements of Bye-laws. Opening "Turner" ventilators.

Hillend Farm (Grade A (T.T.) Licence).—New trussed roof with 2-inch opening at ridge for outlet ventilation. Wallheads beam-filled. "Cleena" sterilizing outfit.

Auchtygemmell Farm (Grade A (T.T.) Licence).—New concrete trevasses. Walls plastered. Ridge open 2 inches for outlet ventilation. "Cleena" sterilizing outfit.

Low Whiteside Farm.—New concrete floor and trevasses. Inlet and outlet ventilators.

Draffanmuir Farm.—New trussed roof with glazed opening ridge. New inlet ventilators. Concrete floor and trevasses.

Linnhead Farm (Grade A (T.T.) Licence).—New concrete trevasses. Inlet ventilators. Glazed opening ridge.

Woodhead Farm.—Glazed opening ridge for outlet ventilation. Provision of additional light.

Birkwood Mains (Grade A (T.T.) Licence).—Glazed opening ridge for outlet ventilation. New milk store.

Blackwoodyett Farm.—Glazed opening ridge for outlet ventilation.

Boghead Farm.—New concrete floor and trevasses. Inlet and outlet ventilators.

Blackhill Farm (Certified Licence).—Outlet ventilation improved. "Cleena" sterilizing outfit introduced.

Auchenheath Farm.—Glazed opening ridge.

Scorrieholm Farm (Grade A (T.T.) Licence).—Glazed opening ridge.

Lesserlinn Farm (Certified Licence).—Opening ridge boards.
“Cleena” outfit installed.

Auldtown Farm (Grade A (T.T.) Licence).—Glazed opening ridge.
Sterilizing plant installed.

Teath's Farm (Certified Licence).—Glazed opening ridge.
Sterilizing plant introduced.

Littlegill Farm, Auchenheath.—Trussed roof. Inlet ventilators.
Concrete floor and trevasses.

Netherhall Farm.—Byre reconstructed. New concrete floors and trevasses. Trussed roof, with open ridge. New inlet ventilators.

Low Blackwoodyards Farm.—Opening glazed ridge provided.
“Cleena” sterilizing outfit.

South Draffan Farm.—Trussed roof, with opening glazed ridge.
Wall-heads beam-filled, walls plastered.

Lochanbank Farm, Kirkmuirhill.—Byre reconstructed to provide the necessary width for central passage and grips. New concrete floor and trevasses. Walls plastered and beam-filled. Glazed opening ridge and inlet ventilators.

Parish of Libberton.

Cormiston Towers Farm (Certified Licence).—Byre reconstructed to meet requirements of By-laws in all respects. Opening glazed ridge ventilator. Sterilizing plant installed.

Townhead Farm.—New inlet and outlet ventilators.

Brownhill Farm (Certified Licence).—Opening ridge provided.
“Cleena” sterilizing outfit installed.

Infectious Diseases.

610 visits of enquiry were paid.

590 notices were issued to headmasters.

380 houses of premises were disinfected.

360 patients were removed to hospital.

Fuller details as to Infectious Disease will be found in the Report of the Medical Officer of Health.

WILLIAM PATERSON,
District Sanitary Inspector.

COUNTY OF LANARK
DISTRICT OF THE UPPER WARD

Midwives (Scotland) Act, 1915

TWELFTH
ANNUAL REPORT

BY THE
MEDICAL OFFICER OF HEALTH

1928

The Medical Officer of every Local Authority shall report annually to that Authority of the administration of the Act within the District of that Local Authority, and he shall transmit a copy of such report to the Central Midwives Board and to the Local Government Board for Scotland.—Section 23.

STAFF.

Administrative Officer.

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

Executive Officer and Inspector of Midwives.

ALEXANDER FRASER, M.D., D.P.H.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(All hold C.M.B. Certificate.)

HELEN MACGREGOR.

ANNIE H. BELL.

ANNIE S. AITKEN.

Practising Midwives.—12 midwives notified their intention to practise in the Upper Ward District.

These midwives are in *bona-fide* practice, and certified under the Act, though, however, many of them seldom practise by themselves, preferring to attend chiefly on doctors' cases.

Attendances at Confinements.—The total number of births allocated to the district amounted to 888.

895 births were notified, of which 858 were live births, and 37 still-births. From these notifications it was found that in 806 cases a medical practitioner was in attendance, in 88 a certified midwife; and in 1 an uncertified midwife. The percentage of births registered in the district which were attended by certified midwives was 10·2.

Still-births.—In the Upper Ward District 37 still-births were notified. In 34 cases a medical practitioner was in attendance, and in 3 cases a certified midwife.

Inspection of Midwives.—The routine inspections made during the year showed that the personal conditions were satisfactory in 6 cases and fair in the remainder.

Puerperal Septicæmia.—During the year 3 cases of this disease were notified by the medical practitioners in attendance. One of these cases was removed to the County Hospital, Motherwell, while 2 were treated at home. One death occurred in hospital and 1 at home.

Ophthalmia Neonatorum.—During the year 2 cases were notified by the medical practitioners in attendance. Visits were made by the Nurse Health Visitor, and the cases classified as mild. Both cases were treated in hospital.

Medical Assistance.—No notifications of the calling in of medical assistance were received during the year.

Liability to be a Source of Infection.—Two notifications were received.

Form of having laid out a Dead Body.—No notifications were received.

Notification of Death.—No notifications were received.

Offences.—Nil.

BURGH OF BIGGAR*

Area, 62 Acres)

REPORT

OF THE

MEDICAL OFFICER OF HEALTH AND OF THE
SANITARY INSPECTOR

1928

Report of the Medical Officer of Health.

Statistics.

The **population**, as estimated to the middle of the year 1928, was 1,538.

The **births** registered in the Burgh amounted to 18, and, after correction for transfers, numbered 18—males, 8; females 10, giving a birth-rate of 11·6 per 1,000 of the population.

The **deaths** registered in the Burgh numbered 16, and, after correction for transfers, amounted to 19—males, 5; females, 14—giving a death-rate of 12·3 per 1,000 of the population.

The following table shows the cause and age periods at death:—

	-1	1-	5-	10-	25-45	45-65	65 & over.	Total.
Malignant Diseases, -	—	—	—	—	—	3	1	4
Cerebral Hæmorrhage, -	—	—	—	—	—	—	1	1
Organic Heart Disease, -	—	—	—	—	1	1	1	3
Other Circulatory Diseases, -	—	—	—	—	—	—	1	1
Bronchitis, -	—	—	—	—	—	—	1	1
Pneumonia, -	—	—	1	2	—	—	3	6
Diabetes, -	—	—	—	—	—	1	—	1
Congenital Heart, -	—	—	—	1	—	—	—	1
Violence, -	—	—	—	—	—	—	1	1
Total,	—	—	1	3	1	5	9	19

Prevalence of Infectious Disease.

Notifiable Diseases.—In all, 12 cases of infectious disease were notified. Scarlet fever, 9; diphtheria, 2; influenzal pneumonia, 1. Of these, 8 cases of scarlet fever and 1 case of diphtheria were treated in hospital. The cases treated in hospital were as follows:—Burgh Fever Hospital, Lanark—scarlet fever, 5. County Hospital, Motherwell—scarlet fever, 3; diphtheria, 1. Visits of inspection were made to the homes where the cases occurred, and disinfection carried out. All precautions to prevent the spread of the disease were taken.

Tuberculosis.—No notifications during the year.

Institutional Treatment.—1 case was admitted during the year to the District Sanatorium, Roadmeetings, being of the pulmonary type.

Domiciliary Treatment.—No cases received domiciliary treatment.

Deaths from Tuberculosis.—No deaths occurred during the year.

Venereal Diseases.

The Burgh is included in the scheme of the Joint-Committee for the precaution and treatment of venereal diseases.

Maternity and Child Welfare.

The Burgh is included in the Upper Ward Scheme. The District Nurse acts as Nurse Health Visitor for the Burgh and the surrounding County District.

Notifications of Births.—14 notifications were received, and the attendant at birth in each case was a medical practitioner.

Infantile mortality.—No deaths under 1 year were recorded, the infantile mortality rate being nil.

Necessitous Cases.—No cases received assistance during the year.

Hospital Treatment.—There were no admissions to hospitals during the year.

Midwives (Scotland) Act, 1915.

Practising Midwives.—There are no practising midwives in the Burgh.

Attendances at Confinements.—14 notifications of birth were received, all being attended by medical practitioners.

Still-births.—There were no still-births.

Puerperal Septicæmia.—No cases occurred.

Ophthalmia Neonatorum.—No cases occurred.

Milk and Dairies (Scotland) Act, 1914.

There are 5 retailers only within the Burgh.

General Sanitation.

Water supply, drainage and sewage disposal, scavenging, and other matters are referred to in the report of the Sanitary Inspector.

Workshops.—These are dealt with in the report of the Sanitary Inspector.

Food and Drugs Acts.—The County Council administer these Acts within the Burgh.

The *Public Slaughter-house* is situated outside the Burgh boundary. A record of the animals killed and dues collected is given in the Sanitary Inspector's report,

Report of the Sanitary Inspector.

The **water supply** for the Burgh of Biggar is obtained from King's Beck Burn, situated about seven miles south of the Burgh of Biggar. The Town Council inspected the inlet of the dam in the month of August last, and were satisfied that the supply was adequate for all purposes.

The **drainage and sewage systems** of the Burgh are dealt with in two portions, east and west. The east portion, passing through two settling tanks, is run in open channels over about six acres of land, which is owned by the Town Council. The sewage from the west, after passing through three settling tanks, is allowed to run in open channels, and spread over the most part of ten acres of land, the property of the Town Council.

Scavenging System.—The ashes and night soil from dry closets are removed on alternate days, that is on Monday, Wednesday, and Friday from the east end of the Burgh, and on Tuesday, Thursday, and Saturday from the west end. On Friday there is a general collection of all rubbish, &c. The whole of the rubbish is deposited in a coup about one mile outside the Burgh and burned.

Nuisances.—Several cases were dealt with during the year. After due notice having been given, they were removed by the owners or tenants, no legal proceedings being necessary.

The **High School** was visited frequently, and found to be kept very clean and in good order.

There are 14 properties without water and sink inside the dwelling-house within the Burgh.

Water-closets (common to more than 1 tenant).—There are 17 water-closets, each for two tenants, and 9 water-closets, each for three tenants. There are 12 dry closets—3 for five tenants, 2 for four tenants, 2 for three tenants, and 5 for one tenant each,

Visits of inspection were made to tents and living vans, local and temporary. These were found to be clean and tidy.

Cowkeepers and Sellers of milk.—There are no cowkeepers within the Burgh. There is one milk shop, which was visited frequently, and found to be kept in a very clean condition.

Pig-styes.—Visits of inspection were made to pig-styes, and all were found to be clean and in good order.

Common Lodging-houses.—There is none within the Burgh.

Burial Ground.—The burial ground is situated partly within the Burgh and partly in the County area. The grass is frequently cut, and a good supply of water is given by the permission of the Town Council.

Infectious Disease.—The cases of infectious diseases occurring in the Burgh are noted in the report of the Medical Officer of Health. Inquiries were made as to the source of infection, and frequent visits were made to the houses affected. Thorough disinfection of the houses and bedding was carried out.

Workshops.—There are 46 workshops in the Burgh. Visits of inspection (100) were made at different intervals. There are no underground workshops in the Burgh. The following is a list of the different workshops and the number of persons employed:—

Workshops.	No. of Shops.	NO. OF EMPLOYEES.			Total.
		Males.	Females.	Apprentices.	
Dressmakers and Milliners,	- 9	5	13	2	20
Tailors, - - - -	- 4	10	3	3	16
Bakers, - - - -	- 5	10	12	8	30
Cabinetmakers,	- 2	4	2	1	7
Jewellers, - - -	- 3	4	1	—	5
Harnessmakers,	- 1	3	1	1	5
Blacksmiths, - -	- 2	4	—	2	6
Shoemakers, - - -	- 4	9	3	—	12
Engineers, - - -	- 6	12	2	2	16
Plumbers, - - -	- 3	8	1	5	14
Painters, - - -	- 3	11	—	5	16
Joiners, - - -	- 4	12	—	5	17
Total, - - -	46	92	38	34	164

Slaughter-house.—The slaughter-house is situated outside the Burgh boundaries. Visits of inspection were frequent, and the premises were found to be kept in a very clean condition. The record of animals killed and dues collected are as follows :—

Cattle.	Calves.	Swine.	Sheep.	Total.	Dues Collected.
750	56	460	24,132	25,398	£316 18s. 5d.

Record of Inspections made :—

	No. of Inspections.
High School, - - - - -	42
Workshops, - - - - -	100
Tents and Vans, - - - - -	14
Milkshops, - - - - -	12
Pig-styes, - - - - -	13
Fish Shops, - - - - -	22
Slaughter-house, - - - - -	53
	<hr/>
	256
	<hr/>

WILLIAM SMITH,
Sanitary Inspector.



COUNTY OF LANARK.

MIDDLE WARD.

ANNUAL REPORT for 1928.

STAFF.

PUBLIC HEALTH DEPARTMENT.

MIDDLE WARD DISTRICT.

County and District Medical Officer—

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

Tuberculosis Officers and Assistant M.O.H.—

J. M'CALLUM LANG, M.D., D.P.H.

JOSEPH R. SUTHERLAND, M.B., Ch.B., B.Sc., D.P.H.

DAVID R. HAMILTON, M.B., Ch.B., D.P.H.

EDGAR A. UNDERWOOD, M.A., B.Sc., M.B., Ch.B., D.P.H.

Assistant M.O. under Child Welfare Scheme—

WILLIAM GLASGOW, M.B., Ch.B.

GEORGE W. MURRAY, M.B., Ch.B., D.P.H.

District Sanitary Inspector—

JOHN MILLAR.

Inspector of Buildings—

WILLIAM MARTIN.

District Meat Inspector, etc.—

ALEX. CAMERON.

LOCAL SANITARY INSPECTORS,	-	-	-	-	9
NURSE HEALTH VISITORS,	-	-	-	-	17
NURSE SANITARY INSPECTORS,	-	-	-	-	12
SUPERINTENDENTS OF SLAUGHTER-HOUSES,	-	-			7
ASSISTANT BUILDINGS INSPECTORS,		-	-	-	2

STAFF.

PUBLIC HEALTH HOSPITALS.

MIDDLE WARD DISTRICT.

Medical Officer—

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

<i>County Hospital, Motherwell,</i> (232 beds)	- -	Dr. JOHN REID, Resident Physician-Superintendent. Dr. JAMES SHARPE, Resident Assistant Physician. Miss M. THOMSON, Matron.
<i>Lightburn Joint-Hospital, Shettleston,</i> (60* beds)	-	Dr. H. M. DAVIE, Resident Physician-Superintendent. Miss E. TOWNSEND, Matron.
<i>County Orthopædic Hospital, Stonehouse,</i> (60 beds)	-	Dr. J. R. SUTHERLAND, Resident Physician-Superintendent. Dr. A. H. M'LEAN, Visiting Physician. Miss A. SHORE, Matron.
<i>County Sanatorium, Shotts,</i> (52 beds)	- -	Dr. D. R. HAMILTON, Physician-Superintendent. Dr. J. M'MILLAN, Visiting Physician. Miss ISA KEIR, Matron.
<i>County Sanatorium, Uppertown,</i> (46 beds)	- -	Dr. J. M'CALLUM LANG, Physician-Superintendent. Dr. RICHARD RAE, Visiting Physician. Miss H. J. MORE, Matron.
<i>Hairmyres Colony,</i> (232 beds)	- - - -	Dr. JAMES JOHNSTONE, Resident Physician-Superintendent. Dr. JOHN D. FINDLAYSON, Resident Assistant Physician. Miss M. LAIRD, Matron.
<i>County Maternity Hospital, Bellshill,</i> (48 beds)	-	Dr. H. J. THOMSON, Physician-Superintendent. Miss A. CRAWFORD, Matron.
<i>County Convalescent Home, - Calderbank House,</i> (30 beds)	- - -	Dr. WILLIAM GLASGOW, Physician-Superintendent. Mrs. J. M'DOUGALL, Matron.
<i>Blantyre Hospital,</i> (10 beds)	- - - -	Dr. GEORGE W. MURRAY, Visiting Physician. Miss J. H. LEE, Matron.
<i>Dalserf Hospital, -</i> (10 beds)	- - - -	Dr. J. R. SUTHERLAND, Visiting Physician. Miss MARY LAMONT, Matron.

* 15 beds owned by the Middle Ward District Committee.

COUNTY OF LANARK.

DISTRICT OF THE MIDDLE WARD.

(Area, 184,683 acres.)

Report by the Medical Officer of Health

FOR THE YEAR 1928.

I.—Vital Statistics.

The **Area** of the District at the close of the year was **184,683** acres. The apparent increase is accounted for by the final adjustment of boundary extensions referred to in the report for the years 1925 and 1927.

The acreage and population of each parish is stated in Table B.

The density of population was 1.29 persons to the acre.

The **population** at the middle of the year has been estimated, from local sources, at **239,000**, an increase of 3,000 compared with the year 1927.

The number of inhabited houses in the District, according to the Valuation Roll, was **45,083**, an increase of 367, compared with the year 1927. The number of uninhabited houses, according to the Roll, was 711, compared with 541 the previous year.

Statistical Tables.—Table A shows the birth-rate and death-rate per thousand of the population, and the infantile deaths per thousand births. It also shows the birth and death rates and infantile deaths for each year since 1921 and the average rates for the decennial periods between 1891 and 1920.

Table B shows the acreage, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause, and Table C shows the deaths classified according to cause and age periods.

The **Births** registered numbered **5,382**—males, 2,729; females, 2,653—321, or 5.9 per cent., were illegitimate. The Birth-rate per 1,000 of the population was 22.5, which is the lowest rate ever recorded

in the Middle Ward District. The lowest rate previously recorded, viz., 23·9, occurred in 1927, and reference to Table A shows that for many years the rate has undergone an almost unbroken fall.

Deaths during 1928 numbered **2,614**, as compared with 2,649 in 1927, the respective death-rates for the two years being 10·9 and 11·2 per 1,000. This is the lowest death-rate ever recorded. The deaths from measles were increased from 19 to 83, and the deaths from whooping-cough were 52 more than in 1927. On the other hand, deaths from respiratory diseases fell from 511 to 420, pneumonia being responsible for 38 deaths fewer than in the previous year.

The deaths of infants under one year numbered 491, which is equivalent to 91·2 deaths per 1,000 births, as compared with 87·4 recorded last year. The deaths are referred to in detail in the portion of the Report dealing with Maternity and Child Welfare.

The number of births exceeded the deaths by 2,768, which constitutes the **natural increase** in population.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year.	Births.	Birth-rate.	Nett Deaths.	Death-rate.	INFANTS UNDER 1 YEAR.	
					Deaths.	Death-rate.
1891 to 1900	62,323	39·1	29,080	18·1	8,098	129·9
1901 to 1910	74,121	38·9	31,188	16·3	9,212	124·2
1911 to 1920	68,201	32·5	30,005	14·3	7,547	119·4
1921	7,023	32·1	2,660	12·1	631	89·9
1922	6,364	28·3	2,936	13·0	650	102·1
1923	6,218	26·7	2,620	11·2	481	77·3
1924	6,251	26·3	3,023	12·7	620	99·2
1925	6,176	26·0	2,706	11·4	577	93·4
1926	5,928	25·0	2,618	11·0	489	82·4
1927	5,640	23·9	2,649	11·2	493	87·4
1928	5,382	22·5	2,614	10·9	491	91·2



TABLE C.—MIDDLE WARD.—Year 1928.—Deaths classified according to cause and age periods, and corrected for Institutions, &c.

Population, 239,000; Acreage, 184,611; Registered Births, { Legitimate, M., 2,566; F., 2,495; Deaths under 1 year, { Legitimate, 478.
 { Illegitimate, M., 163; F., 158; Total, 5,382. { Illegitimate, 13.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																				Rates per 1,000 Population.	Registered in Institutions in District.		
					Weeks.					Months.					Years.													
					-1	1.	2.	3.	Total -4	1.	3.	6.	9.	Total -12	1.	5.	10.	15.	25.	35.	45.	55.	65.	75 and over.				
Certified.	2,459	369	215	2,613	123	26	18	31	198	83	71	60	79	491	281	74	43	125	134	150	209	341	436	329	10.9330	513		
Uncertified.	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	.0042	...
Fever.	2	1	...	3	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	.0125	2
Pox.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	83	1	1	83	...	...	...	...	...	1	3	8	18	30	52	1	...	...	...	...	...	...	...	...	...	.3473	13
Fever.	7	...	...	7	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	2	...	...	...	...	...	.0293	4
Cough.	84	1	...	85	...	...	1	3	4	7	6	14	18	49	30	6	...	...	...	...	...	...	...	...	...	.3557	4
...	27	2	1	28	...	...	...	...	...	1	...	...	...	1	13	10	4	...	...	...	...	...	...	...	...	.1172	21
...	67	...	...	67	...	...	...	...	...	2	3	3	...	8	2	2	1	4	4	3	5	12	17	9	.2803	3	
...	13	2	1	14	...	...	...	...	...	...	1	1	3	5	7	2	...	...	...	...	...	...	...	...	...	.0586	7
...	11	1	3	9	...	...	...	...	...	1	1	...	...	2	...	...	1	...	1	1	3	1	...	...	...	.0377	6
...	8	1	3	6	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	...	1	...	...	...	...	.0251	4
...		
...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	.0042	...
...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	.0042	...
...	128	6	17	117	...	...	...	...	...	...	...	1	1	2	6	2	2	28	30	24	11	9	2	1	...	.4896	53
...	37	3	4	36	...	...	...	...	...	1	3	1	5	10	22	1	...	3	...	...	...	...	...	...	...	.1506	18
...	22	4	2	24	...	...	...	...	...	...	...	...	3	3	11	2	2	3	...	2	...	1	...	...	...	.1004	8
...	18	1	1	18	...	...	...	...	...	...	...	1	...	1	3	1	4	3	3	1	1	...	1	...	...	.0753	4
...	2	5	...	7	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	1	1	1	...	...	.0293	...
...	10	1	...	11	...	...	...	...	...	...	...	...	...	...	...	1	3	3	2	...	1	...	1	...	...	.0460	1
...	192	55	10	237	...	...	...	...	...	...	...	...	...	...	2	...	1	5	5	18	36	71	68	31	...	.9917	16
...	27	5	2	30	...	...	...	...	...	3	4	3	2	12	7	4	2	3	1	...	...	1	...	...	...	.1255	3
...	164	13	9	168	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	11	38	65	51	...	...	.7030	13
...	72	8	18	62	...	...	...	...	...	...	...	...	...	...	2	2	...	5	5	11	9	14	9	5	...	.2595	29
...	334	29	52	311	...	...	...	...	...	...	...	...	...	...	2	6	3	9	9	9	39	74	105	55	1.3013	78	
...	66	11	9	68	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	6	10	25	24	...	.2845	19
...	117	7	6	118	...	2	3	4	9	9	4	2	2	26	4	1	...	3	...	5	10	20	26	23	...	.4938	9
...	203	18	16	205	1	...	3	...	4	5	15	12	14	50	55	5	3	11	9	14	16	15	11	16	...	.8578	60
...	27	4	1	30	...	...	1	1	2	2	1	...	...	5	4	3	...	3	...	2	3	4	4	2	...	.1255	2
...	19	2	1	20	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2	10	4	1	...	.0837	...
...	11	2	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	3	3	2	...	...	.0502	2
...	8	2	1	9	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	...	2	2	...	...	...	.0376	2
...	2	22	...	24	...	...	...	...	...	...	...	...	...	...	2	1	3	6	4	2	2	2	2	...	...	.1004	...
...	9	11	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	4	4	4	3	...	.0837	...
...	27	34	1	60	...	2	...	1	3	...	3	1	1	8	1	3	1	5	4	7	6	12	8	5	...	.2511	3
...	51	11	3	59	...	...	...	...	...	...	...	...	...	...	3	...	...	2	6	10	9	11	15	3	...	.2469	6
...	10	14	1	23	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	2	3	3	8	5	...	.0962	1
...	2	4	...	6	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	2	...	...	.0251	...
...	34	...	9	25	...	...	...	...	...	...	...	...	...	...	...	...	...	5	11	9	...	...	...	...	...	.1046	33
...	10	2	3	9	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	3	...	...	...	...	...	.0376	5
...	
...	10	...	...	10	2	...	...	1	4	2	...	...	...	6	3	1	...	...	...	...	...	...	...	...	...	.0418	...
...	10	5	...	15	6	...	...	...	7	6	1	1	...	15	...	...	...	...	...	...	...	...	...	...	...	.0627	...
...	16	1	...	17	1	1	...	3	5	2	2	2	2	13	4	...	...	...	...	...	...	...	...	...	...	.0711	...
...	56	1	3	54	1	1	1	1	4	12	12	7	4	39	15	...	...	...	...	...	...	...	...	...	...	.2259	6
...	108	1	5	104	71	7	5	9	92	12	...	...	...	104	...	...	...	...	...	...	...	...	...	...	...	.4352	29
...	6	...	...	6	5	...	...	...	6	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	.0251	1
...	76	1	1	76	29	9	3	7	48	14	11	1	2	76	...	...	...	...	...	...	...	...	...	...	...	.3180	14
...	5	...	...	5	4	...	...	...	4	1	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	.0209	...
...	2	2	20084	...
...	1	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	.0042	...
...	3	...	1	2	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	.0084	2
...	64	49	8	105	1	...	...	...	1	...	1	...	1	3	14	16	9	12	16	7	13	6	7	2	...	.4394	2
...	14	2	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	1	4	3	3	...	...	.0627	1
...	130	24	18	136	1	...	...	...	1	...	...	2	2	5	2	1	1	3	3	1	2	3	33	82	...	.5692	27
...	53	2	2	53	1	...	1	...	2	2	...	...	...	4	4	2	...	...	5	3	6	8	10	11	...	.2218	2
Total.	2,460	369	215	2,614	123	26	18	31	198	83	71	60	79	491	281	74	43	125	134	150	210	341	436	329	10.9372	513		



PUBLIC INSTITUTIONS SITUATED WITHIN THE DISTRICT WHERE SOME
PERSONS NOT BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS
ARE EXCLUDED.

Name of Institution	Parish where situated	Population. Police Census, 1928	DEATHS.	
			Total during 1928	Allocated to the Middle Ward District
Kirklands Asylum, -	Bothwell,	329	31	8
Hartwood Asylum, -	Shotts,	1,417	113	36
Airbles House, - -	Dalziel,	145	2	...
Thrashbush Home, - -	New Monkland,	113	19	5
Omoa House, - - -	Shotts,	230	43	24
County Hospital, Motherwell, - - -	Dalziel,	358	177	156
County Orthopædic Hospital, Stonehouse, - - -	Stonehouse,	115	3	3
County Sanatorium, Shotts, - - - -	Shotts,	91	23	23
County Sanatorium, Uppertown, - - -	New Monkland,	54	14	14
Hairmyres Colony, - -	East Kilbride,	282	1	...
County Maternity Hospital, Bellshill, - - - -	Bothwell,	75	43	36
County Convalescent Home, Calderbank House, -	Old Monkland,	78	14	13
County Hospital, Blantyre,	Blantyre,	14	5	5
County Hospital, Dalserf,	Dalserf,	15	...	...
Blantyre Cottage Hospital, - - - -	Blantyre,	9	5	5
St. Vincent Home for Deaf and Blind Children, -	Old Monkland,	201	...	...
Elmwood Convent, -	Bothwell,	34	2	2
Collisdene Nursing Home, Strathaven, - - -	Avondale,	24	6	4
Homœopathic Hospital, Mount Vernon, - - -	Old Monkland,	32	12	1
Total, -		3,616	513	335

PUBLIC INSTITUTIONS SITUATED OUTWITH THE DISTRICT WHERE SOME PERSONS BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS ARE INCLUDED.

<i>General Hospitals.</i>		<i>Poor Law Institutions.</i>	
Glasgow Royal Infirmary,	- 161	41 Bothwell Road, Hamilton,	- 24
Glasgow Western Infirmary,	- 19	69 Hospital Street, Coatbridge,	8
Glasgow Victoria Infirmary,	- 17	Others, - - - - -	12
Edinburgh Royal Infirmary,	- 8		
Glasgow Sick Children's Hos- pital, - - - - -	35		
<i>Infectious Diseases Hospitals.</i>			
Lightburn Hospital,	- - 12	All other Institutions, - - -	46
Ruchill Hospital, &c.,	- - 5		
	<hr/> 257		<hr/> 90
	<hr/> <hr/> TOTAL, 347 <hr/> <hr/>		

DEATHS IN RELATION TO AGE AND CAUSE.—Table C shows the deaths classified according to age and cause. The deaths are here arranged in recognised age-periods, and the percentage proportion of deaths at each age-period is given:—

Infant period,	under 1 year,	491 deaths or 18·7	per cent.
Under school age,	1·5 years, -	281	„ 10·70 „
School age,	5-15 „ -	117	„ 4·40 „
Adolescent,	15-25 „ -	125	„ 4·70 „
Early mature period,	25-45 „ -	284	„ 10·80 „
Late „ „	45-65 „ -	551	„ 21·80 „
Post „ „	65 years and upwards, -	765	„ 29·20 „

Reference to Table A shows that the infantile mortality rate increased from 87·4 in 1927 to 91·2 in 1928, but that the general death-rate showed a decrease from 11·2 to 10·9 per thousand of the population in respect of those two years. If, however, the above table be compared with that for 1927, it will be found that, while the percentage proportion of deaths of infants under 1 year remained much the same, the percentage deaths at 1 to 5 years increased appreciably. The percentage deaths at the post-mature period decreased to some extent.

Infectious Diseases.—The number of deaths due to infectious diseases which are compulsorily notifiable was 494, made up thus:—

Diphtheria, - - -	28	Tuberculosis (all other	
Erysipelas, - - -	9	forms), - - -	78
Scarlet Fever, - - -	7	Pneumonia, - - -	205
Typhoid Fever, - - -	3	Dysentery, - - -	1
Puerperal Sepsis, - - -	25	Acute Infective Jaun-	
Cerebro-spinal Fever, - - -	14	dice, - - -	1
Pulmonary Tuberculosis, - - -	117	Encephalitis Lethargica, - - -	6

The deaths from infectious diseases not compulsorily notified amounted to 222:—Measles, 83; whooping-cough, 85; diarrhœa, 54. The prevalence of the various infectious diseases is further referred to in the second portion of the Report:—

Respiratory Diseases.—The deaths during the year numbered 420, and the following statistics show the deaths and death-rates of the various forms for the past five years:—

PNEUMONIA.		BRONCHITIS.		INFLUENZA.		OTHER RESPIRATORY DISEASES.			
Year.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Total Deaths.
1924	319	1·34	163	0·68	122	0·51	33	0·13	637
1925	220	0·92	140	0·59	55	0·23	29	0·12	444
1926	206	0·86	142	0·59	88	0·37	35	0·14	471
1927	243	1·03	141	0·59	95	0·40	32	0·13	511
1928	205	0·86	118	0·49	67	0·28	30	0·13	420

With regard to the 67 deaths from influenza, the disease was complicated with other conditions in 60 of the cases, as follows:—Tuberculosis, 1; bronchitis, 9; pneumonia, 25; other respiratory diseases, 5; other complications, 20.

Malignant Diseases.—The deaths falling under this heading numbered 237, as compared with 239 in the previous year. In 175 cases carcinoma was stated as the cause of death, in 13 cases sarcoma, in 4 cases epithelioma, and in 45 the nature of the malignant disease was not defined. The following table shows the distribution of the disease according to age and sex, and according to the organs and parts of the body affected:—

Age Period.	Sex.	Buccal Cavity.	Pharynx, &c.	Peritoneum, &c.	Female Genital Organs.	Breast.	Skin.	Throat.	Lungs.	Kidney.	Bladder.	Prostate.	Testicle.	Cervical Glands.	Parotid Gland.	Mediastinum.	Femur.	Pelvis.	Brain.	* Others.	Total.	
-1 Year	{ M. F. }	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
1-5 Years	{ M. F. }	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	
5-10 "	{ M. F. }	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10-15 "	{ M. F. }	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15-20 "	{ M. F. }	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
20-25 "	{ M. F. }	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
25-30 "	{ M. F. }	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
30-35 "	{ M. F. }	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
35-40 "	{ M. F. }	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
40-45 "	{ M. F. }	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
45-50 "	{ M. F. }	—	2	3	3	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	6	
50-55 "	{ M. F. }	—	3	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	
55-60 "	{ M. F. }	1	4	4	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	
60-65 "	{ M. F. }	2	2	4	4	4	1	—	2	1	—	—	—	—	—	—	—	—	—	—	12	
65-70 "	{ M. F. }	1	8	6	4	3	—	1	1	—	—	—	—	—	—	—	—	—	—	—	14	
70-75 "	{ M. F. }	1	11	1	3	3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	18	
75 years and over,	{ M. F. }	3	8	7	2	1	—	1	—	—	—	2	—	—	—	—	—	—	—	—	19	
All Ages, ...	{ M. F. }	9	46 49	25 31	— 20	3 17	5 2	2 —	4 5	4 1	— 1	6 —	—	—	—	1	—	—	—	—	—	17
																					108	
																					237	

*Includes neck, 3; groin, 1; orbit, 1; hip joint, 1; thigh, 1; chest, 1; and spinal cord, 1

* Includes neck, 3; groin, 1; hip joint, 1; thigh, 1; chest 1; and spinal cord, 1

Diabetes.

Deaths from diabetes numbered 20.

The following table classifies the deaths since 1920, according to age and sex groups:—

Age Period		1920	1921	1922	1923	1924	1925	1926	1927	1928
1-5	M. -	—	1	—	—	—	—	—	—	—
	F. -	—	1	—	—	—	—	—	—	—
5-10	M. -	—	—	—	—	—	—	—	—	—
	F. -	—	—	—	—	—	—	—	—	—
10-15	M. -	—	—	—	—	—	1	—	—	—
	F. -	—	—	—	—	—	1	—	—	—
15-25	M. -	1	—	—	2	1	—	3	—	1
	F. -	—	1	—	1	1	1	1	1	—
25-35	M. -	—	1	—	3	—	2	—	1	—
	F. -	1	3	2	—	—	—	1	1	—
35-45	M. -	1	1	—	1	2	—	—	2	1
	F. -	—	—	1	—	—	2	—	1	1
45-55	M. -	4	—	—	2	—	—	1	—	1
	F. -	1	1	3	1	2	2	3	3	1
55-65	M. -	1	3	1	2	1	—	3	2	1
	F. -	6	2	3	2	1	6	8	11	9
65-75	M. -	1	1	3	2	—	2	—	1	1
	F. -	2	1	1	6	5	5	4	6	3
75+	M. -	1	—	—	1	—	1	1	—	1
	F. -	1	—	1	—	1	—	1	2	—
TOTAL,	M. -	9	7	4	13	4	6	8	6	6
	F. -	11	9	11	10	10	17	18	25	14
GRAND TOTAL,		20	16	15	23	14	23	26	31	20

In none of the cases dying during the year was insulin being supplied by the Local Authority, but it is not known whether this form of treatment was being carried out by private arrangement or with assistance from the Insurance Committee or the Parish Council.

Supply of Insulin.—Insured persons and those in receipt of Poor Law medical relief are entitled to a supply of insulin from the Insurance Committees and Parish Councils, whilst those who do not come within the purview of these two Authorities are dealt with by the District Committee, under the Public Health (Amendment) Act, 1925.

The Middle Ward Scheme is limited to patients who are deemed to be in necessitous circumstances, and whose treatment is being supervised by a medical practitioner.

The following particulars relate to cases supplied with insulin during the year :—

Sex	Age	Date of first supply	Daily dose	Total amount supplied during 1928	Result of Insulin treatment
F.	61	15-2-26	10 units.	3,100 units.	Improved.
F.	49	30-4-26	30 „	10,000 „	Much improved.
F.	39	19-8-27	20-40 „	4,400 „	Much improved. Now left district.
F.	59	6-9-27	20 „	500 „	Died. "Diabetes Carcinoma."
M.	10	16-2-28	30 „	6,400 „	Much improved.
F.	48	7-3-28	20-10 „	8,200 „	Much improved.
F.	25	13-3-28	30 „	3,200 „	Improved.
F.	54	3-5-28	20 „	3,700 „	Much Improved.
F.	69	24-11-28	10 „	500 „	Improved.
M.	10	7-12-28	8 „	200 „	Improved.

II.—Prevalence of Infectious Disease.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (a) under the Notification Act, (b) by adoption under the Notification Act, and (c) by order of the Scottish Board of Health; and Group II, diseases not compulsorily notifiable. The diseases included in these groups are as follows:—

GROUP I.

(a)	(b)	(c)
Smallpox.	<i>August, 1906.</i>	<i>1st August, 1912.</i>
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	<i>24th October, 1912.</i>	<i>1st July, 1914.</i>
Typhus Fever.	Tetanus.	All forms of Tuberculosis.
Typhoid Fever.	Anthrax.	<i>1st November, 1918.</i>
Puerperal Fever.	Glanders.	Ophthalmia Neonatorum.
Erysipelas.	Actinomycosis.	<i>1st August, 1919, and</i> <i>21st November, 1927.</i>
		Malaria.
		Dysentery.
		Acute Primary Pneumonia.
		Acute Influenzal- Pneumonia.
		<i>21st December, 1925.</i>
		Infective Jaundice.
		Infantile Paralysis.
		Polio-Encephalitis.
		Encephalitis Lethargica.
		<i>25th March, 1927.</i>
		*Chickenpox.

GROUP II.

Measles.	Ringworm.	German Measles.
Mumps.	Scabies.	Whooping-Cough.

* Now made compulsorily notifiable until 31st Decr., 1930, vide the Public Health (Chickenpox) Amendment Regulations, dated 15th Novr., 1928.

The Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations, 1919, were revoked by the 1927 Regulations referred to in last year's Report; consequently Trench Fever fell to be deleted from the list of compulsorily notifiable infectious diseases as from 1st January, 1928.

TABLE E—NUMBER OF CASES OF INFECTIOUS SICKNESS RECOGNISED IN EACH PARISH DURING 1928.

PARISH.	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Fever.	Infantile Paralysis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Malaria.	Dysentery.	Primary Pneumonia.	Influenza-Pneumonia.	Tetanus.	Encephalitis Lethargica.	Acute Infective Jaundice.	Chickenpox.	Total.
1. Avondale, -	-	*16	5	29	1	1	1	1	1	1	1	13	4	1	—	19	5	—	—	—	44	140
2. East Kilbride, -	-	8	2	8	—	—	—	1	—	1	1	3	4	—	—	8	—	—	—	—	10	46
3. Glasgow, -	-	9	—	8	—	—	—	—	1	—	—	—	—	—	—	4	1	—	—	—	10	33
4. Stonehouse, -	-	3	3	—	—	—	—	—	—	—	—	3	2	—	—	2	—	1	—	—	19	33
First Division,	-	36	10	45	—	1	1	2	1	1	2	21	10	—	—	33	6	1	—	—	83	252
5. Blantyre, -	-	25	10	45	—	2	—	10	3	—	8	25	32	—	—	94	8	—	3	1	22	288
6. Bothwell, -	-	253	44	270	—	10	—	33	8	—	27	107	129	—	3	470	14	—	5	—	340	1,713
7. Cambuslang, -	-	34	20	230	—	—	—	17	3	4	19	45	48	1	—	130	14	—	4	—	37	606
8. Cambusnethan, -	-	35	20	57	—	1	—	7	3	1	7	19	32	2	—	41	4	—	2	—	82	313
9. Dalserf, -	-	60	9	61	—	12	—	11	1	2	9	24	12	—	—	52	5	—	1	—	9	268
10. Dalziel, -	-	1	1	5	—	—	—	—	—	—	1	2	—	—	—	8	1	—	—	—	3	22
11. Hamilton, -	-	23	3	13	—	—	—	3	—	—	5	6	10	—	2	35	—	—	—	—	45	145
Second Division,	-	431	107	681	—	25	—	81	18	7	76	228	263	3	5	830	46	—	15	1	538	3,355
12. New Monkland, -	-	45	7	23	—	—	—	5	—	—	3	13	30	—	1	25	5	—	—	—	62	219
13. Old Monkland, -	-	47	18	38	—	1	—	5	—	3	11	35	32	—	—	67	7	—	1	—	28	293
14. Shotts, -	-	68	27	52	—	1	—	13	1	3	13	26	50	—	—	57	6	—	1	—	139	457
Third Division,	-	160	52	113	—	2	—	23	1	6	27	74	112	—	1	149	18	—	2	—	229	969
Middle Ward, -	-	*627	169	†839	—	28	—	106	20	14	105	323	385	3	6	4,012	70	1	17	1	850	4,576
Cases notified in Institutions of persons belonging to other Areas, -	-	—	1	—	—	—	—	1	—	—	5	10	3	—	—	6	—	—	—	—	6	32

* Includes 1 patient suffering also from Scarlet Fever.

† Includes 1 patient suffering also from Diphtheria and 2 from Chickenpox.

**Smallpox, Typhus Fever, Continued Fever, Anthrax, Glanders,
Actinomycosis and Polio Encephalitis.**

No notification was received in respect of any of these diseases.

Diphtheria and Membranous Croup.

Table D1 shows the prevalence of diphtheria during the past five years, and during each quinquennial period from 1891 to 1925.

TABLE D1.

Year.	Cases Notified.	Deaths Registered.	Deaths per	Cases per	Deaths per
			100 Cases.	1,000 Population.	10,000 Population.
1891-95 (Average)	210	74	35.1	1.39	4.9
1896-1900	144	35	24.3	0.85	2.0
1901-05	151	34	22.3	0.80	1.8
1906-10	383	41	10.8	1.93	2.0
1911-15	336	32	9.9	1.63	1.5
1916-20	304	29	10.0	1.42	1.3
1921-25	303	29	9.6	1.31	1.3
1924	348	28	8.0	1.46	1.1
1925	267	15	5.6	1.12	0.6
1926	355	16	4.5	1.49	0.7
1927	463	10	2.1	1.96	0.4
1928	627	28	4.4	2.62	1.1

The number of cases of diphtheria is greater than ever previously recorded.

After admission to hospital the diagnosis was revised in 171 cases, as follows:—Positive swab, 106; sore throat, 25; scarlet fever, 6; rickets, 1; naso pharyngitis, 1; measles, 7; laryngitis 2; meningitis, 1; tonsillitis, 2; marasmus, 1; malnutrition, 1; rhinitis, 1; whooping-cough, 1; pneumonia, 4; bronchitis, 1; tuberculous meningitis, 1; tonsillar abscess, 7; palatal paralysis, 1; episternal abscess, 1; hæmophilia, 1. In addition, in 14 cases no evidence of diphtheria could be detected; in 1 case the diphtheria was complicated with scarlet fever, in 1 with whooping-cough, and a third with chickenpox.

The cases and deaths during each month and at certain age-periods are shown below :—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cases,	44	77	61	35	40	49	28	77	53	54	45	64	627
Deaths,	3	3	4	3	3	2	2	2	3	—	1	2	28

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases,	8	151	379	60	27	1	1	627
Deaths,	1	13	14	—	—	—	—	28

The number of cases removed to hospital was 598, or 95·3 per cent. of the total.

Antitoxin was administered by private practitioners to 48 cases prior to their admission to hospital, and to 10 cases which were treated at home. 19 cases which were not removed to hospital received no serum, nor was it given to 550 cases before their admission.

During the year 148,000 units of antitoxin were supplied through police stations to medical practitioners. In addition to this, practitioners were supplied with 288,000 direct from the Public Health Department, or through local dispensaries.

The distribution of cases and deaths throughout the district is shown in Tables E and B respectively.

Scarlet Fever.

Table D2 shows the prevalence of scarlet fever during the past five years, and during each quinquennial period from 1891 to 1925.

TABLE D2.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	1,116	34	3·06	7·42	2·2
1896-1900	1,035	41	3·98	6·13	2·4
1901-05	645	25	3·90	3·44	1·3
1906-10	927	24	2·54	4·67	1·1
1911-15	1,179	29	2·43	5·70	1·3
1916-20	929	21	2·61	4·36	0·9
1921-25	1,168	22	1·9	5·07	0·9
1924	979	18	1·83	4·13	0·7
1925	1,128	20	1·77	4·76	0·8
1926	877	11	1·25	3·70	0·4
1927	545	5	0·92	2·31	0·2
1928	839	7	0·83	3·51	0·3

The number of cases notified still shows an incidence considerably lower than that for the preceding quinquennial period; indeed, it is the second smallest number recorded in any year since 1906. The notifications received each month averaged approximately 70, the actual number being below the average for the seven months from January to April, and June to August inclusive, and above the average for the other five months of the year.

The predominating type of disease was mild, and many cases were so mild as to at first escape recognition. No common source of infection was discovered in any particular series of cases, infection being apparently conveyed by personal contact.

The number of cases removed to hospital was 798, or 95 per cent. of all the cases notified.

The age incidence of cases and deaths for the whole district was:—

Ages,	-	-1	1-5	5-15	15-25	25-45	45-65	All ages.
Cases,	-	7	222	516	73	17	4	839
Deaths,	-	—	5	—	—	2	—	7

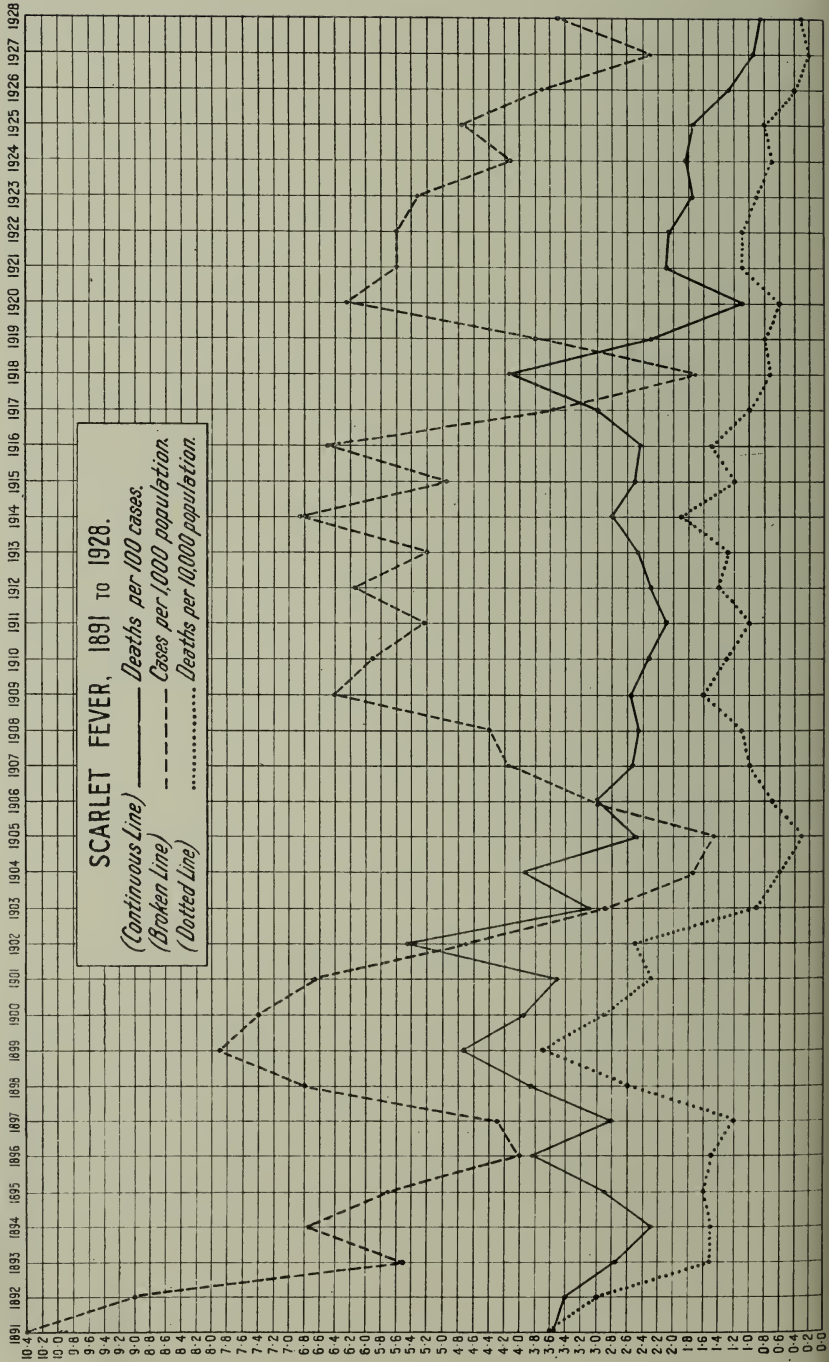
“*Return*” Cases.—20 of the cases discharged from hospital during the year were apparently still capable of carrying infection, and may have given rise to 26 “return” cases. Of the infecting cases, it was found that in 12 no departure from apparently normal health could be found, 5 had developed a nasal discharge, 1 had swollen cervical glands, 1 had excoriation of nose, and in 1 desquamation was present on the feet.

The interval which elapsed between the dismissal from hospital of the infecting cases and the onset of illness in the “return” cases was as follows:—

Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.
2	12	9	3

Altered Diagnosis.—Of the 502 cases admitted to hospital, the diagnosis of scarlet fever was regarded as doubtful in 19 cases, while in 27 no evidence of the presence of scarlet fever could be detected. the diagnosis was revised in 25 other cases, as follows:—Sore throat, 2; measles, 5; diphtheria, 2; whooping-cough, 3; pneumonia, 2; rhinitis, 3; urticaria, 1; ichthyosis, 1; abscesses, 1; albuminuria, 1; chickenpox, 3; endocarditis, 1. In 1 case the scarlet fever was complicated with pneumonia, in 1 case with whooping-cough, and in 3 cases with chickenpox.

The distribution of cases and deaths is shown in Tables E and B respectively.



Typhoid Fever.

TABLE D3.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	465	56	11.95	3.0	4.2
1896-1900 „	350	45	12.73	2.0	2.6
1901-05 „	294	40	13.54	1.5	2.1
1906-10 „	206	19	9.40	1.0	0.9
1911-15 „	111	13	11.09	0.5	0.5
1916-20 „	86	11	12.74	0.3	0.5
1921-25 „	55	6	10.4	0.2	0.2
1924 - -	38	2	5.2	0.1	0.08
1925 - -	25	4	16.0	0.1	0.16
1926 - -	18	3	16.6	0.1	0.12
1927 - -	8	2	25.0	0.04	0.08
1928 - -	28	3	10.7	0.1	0.12

The incidence of typhoid fever, although higher than in 1927 and 1926, was little more than half the average annual incidence for the preceding quinquennial period, 1921-1925.

The monthly and age incidence of cases and deaths was as follows:—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, -	—	2	6	2	5	10	1	1	—	1	—	—	28
Deaths, -	—	—	—	1	—	1	—	—	—	1	—	—	3
Ages.	-	-	-1	1.5	5-15	15-25	25-45	45-65	All ages.				
Cases,	-	-	—	8	9	6	4	1	28				
Deaths,	-	-	—	1	—	—	1	1	3				

20 cases (71.4 per cent.) were removed to hospital, and in 7 cases the diagnosis of typhoid fever was found to require revision. The altered diagnoses were as follows:—Positive widal, 5; dysentery, 1; negative, 1. 10 of the cases were notified as paratyphoid B., and 6 others treated in hospital were found to be infected with the same organism. The distribution of cases and deaths is shown on Tables E and B respectively.

Cerebro-Spinal Meningitis.

Seventeen cases were notified; 1 case admitted to hospital as diphtheria, 1 as tuberculous meningitis, and 1 as pneumonia, proved to be cases of cerebro-spinal meningitis. Six patients died at home, and the others received hospital treatment. Ten patients died in hospital, the certified cause in one case being tuberculous meningitis and in another hæmorrhagic paraplegia. Of the four patients who recovered, the diagnosis was revised in 3 cases, as follows:—Scarlet fever, 1; meningitis, 1; negative, 1.

Puerperal Fever.

The number of cases notified was 107, and the number of deaths 25, as compared with 83 cases and 20 deaths the previous year.

The incidence of this disease is dealt with more fully in the Maternity and Child Welfare Section of the Report.

Erysipelas.

170 cases were notified, and 9 deaths registered. 53 cases were removed to hospital.

Ophthalmia Neonatorum.

110 cases, as compared with 181 in 1927, were notified. The disease is dealt with in the Maternity and Child Welfare Section of the Report.

Tetanus.

One case was notified during the year, and removed to hospital. After a period of 13 days' residence, he was discharged well, no clinical evidence of tetanus having been found.

Malaria.

Three cases were notified during the year, and two of them received institutional treatment. These two cases were a missionary and his wife, who had just returned on furlough from West Africa. The other case, an adult male, contracted the disease in Mesopotamia.

Dysentery.

Five cases were reported during the year, and one patient admitted to the County Hospital, Motherwell, as a case of enteric fever, proved to be suffering from dysentery. Four of the patients were males, and two females, and three of the former were infected while on military service abroad. One of the female patients lived in a mansion house, which in addition to the gravitation water supply, also obtained water from a (so-called) medicinal well. Samples of the water, gravitation and well, were submitted for chemical and bacteriological analysis. The chemical analysis of the well water showed that the supply was almost entirely free from nitrogen in its various forms, but in view of the comparatively high chlorine content, viz., 2.5 parts per 100,000, the water was considered to be of doubtful purity. The bacteriological examination for the dysentery group of organisms proved negative as regards both water supplies. The owner of the house was advised to have the pump from the well dismantled.

Acute Infective Jaundice.

Notification was received by the department on 17th April that an elderly woman was suffering from acute infective jaundice. Investigation of the case was at once made by one of the Assistant Medical Officers of Health, and he found that the patient had died on the previous day. From the history of deceased's illness, and having regard to the fact that no bacteriological evidence in support of the diagnosis of acute infective jaundice could be obtained, I am of the opinion that the case was one of gallstones, death having been probably accelerated by cardiac degeneration. In view of the importance of the disease from an epidemiological point of view, I suggested to the Registrar-General that the death should be classified as due to gallstones. He did not agree with the suggestion.

Pneumonia.

1088 cases of pneumonia were brought to the notice of the Department, 973 cases being notified; 60 were discovered from the Registrars' returns of deaths, and 55 others were not notified.

267 cases were removed to hospital.

Mortality.—The deaths due to pneumonia numbered 205, giving a fatality-rate of 19 per cent., and a death-rate of 0·86 per 1,000 of the population. The following table shows the annual number of deaths and the death-rate per 1,000 since 1921 :—

Year—	1921	1922	1923	1924	1925	1926	1927	1928
Deaths, -	189	301	195	319	220	206	243	205
Death-rate, 0·86	1·33	0·83	1·34	0·92	0·87	1·03	0·86	

The distribution of cases and deaths throughout the year is shown below :—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, -	117	73	116	67	91	67	41	39	55	92	197	133	1,088
Deaths, -	30	13	30	12	15	16	11	10	9	14	23	22	205

The age-distribution of cases and deaths, together with the fatality-rate in each age group, are given in the following table :—

		All ages. - 1 1·5 5·15 15·25 25·45 45·65 65 and over.									
Cases {	Primary, -	-	-	1,018	131	375	190	110	88	78	46
	Influenzal, -	-	-	70	—	9	11	17	7	17	9
Total, -		-	-	1,088	131	384	201	127	95	95	55
Deaths, -		-	-	205	50	55	8	11	23	31	27
Fatality-rate, -		-	-	19·0	38·1	14·3	4·0	8·6	24·2	32·6	49·0

Of the 205 deaths from pneumonia, 59 had taken place before notification was received, 60 occurred in cases which were not notified at all, 9 were secondary pneumonias, and of the remaining 77 the following tabular statement shows the day of illness on which notification was obtained :—

Day of Illness, -	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Total.
Fatal Cases Notified, -	-	-	3	6	6	12	2	8	5	8	4	4	—	77

Information with reference to the day of illness on which each case was notified was recorded in 961 cases, as follows :—

Day of Illness, -	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Died before Notification.
Cases Notified, -	1	26	81	118	154	135	111	67	58	34	32	18	66	60

Acute Anterior Poliomyelitis.

Eleven cases were notified, 2 others were discovered at tuberculosis dispensaries, and a case admitted to the County Hospital, Motherwell, as encephalitis lethargica, proved to be suffering from poliomyelitis.

Encephalitis Lethargica.

16 new cases were notified during the year, and 1 was discovered in the returns of deaths. 7 of these cases were admitted to the County Hospital, Motherwell, and 1 to Stobhill Hospital, Glasgow. In addition, 2 cases notified prior to 1928 were admitted to Stobhill Hospital, Glasgow, and 2 to Lanark District Asylum, Hartwood. 6 deaths were recorded during the year. With regard to the 7 cases admitted to the County Hospital, Motherwell, the diagnosis was revised in 5 cases, as follows:—Tuberculous meningitis, 1; diphtheria, 1; constipation, 1; pneumonia, 1; poliomyelitis, 1. At the end of the year 79 cases were on record, of whom 10 were receiving institutional treatment.

Diarrhoeal Diseases.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1924-1928 were:—

	1924	1925	1926	1927	1928
Deaths, - - -	67	53	43	43	54
Death-rate per 1,000, -	0.28	0.22	0.18	0.18	0.22

All the deaths were of children under 2 years of age, 39 being of infants under 1 year and 15 of children from 1 to 2 years, an increase of 8 and 3 respectively, compared with the corresponding figures for 1927.

Measles.

The deaths from measles numbered 83, which is the highest figure since 1924.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1924-1928 were:—

	1924	1925	1926	1927	1928
Deaths, - - -	151	13	71	19	83
Death-rate per 1,000, -	0.63	0.05	0.29	0.08	0.34

Whooping-Cough.

The number of deaths recorded during the year 1928 was 85, which is considerably higher than the figure for the preceding two years.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1924-1928 were:—

	1924	1925	1926	1927	1928
Deaths, - - -	80	131	25	33	85
Death-rate per 1,000,	0·33	0·55	0·10	0·14	0·35

58 per cent. of the deaths from measles and whooping-cough were of infants under 1 year of age, and 93 per cent. were of children under 5 years.

Ringworm.

76 cases of ringworm were brought under the notice of the Department, and 13 were treated at the County Hospital, Motherwell.

Scabies.

During the year 160 cases were reported. 24 cases were treated in the County Hospital, Motherwell.

Venereal Diseases.

The County scheme for the recognition and treatment of these diseases includes the Middle Ward District, and the work done under the scheme is given in the County Report, along with the number of cases dealt with from each area at the various treatment centres.

School Closure.

It was not found necessary to recommend the closure of any school or department during the year.

Anthrax.

Under the Diseases of Animals Act, 1894, 10 outbreaks of anthrax, affecting 10 cattle, were reported by the Inspector under the Anthrax Order. The outbreaks were distributed as follows:—Avondale, 1; East Kilbride, 1; Glasford, 1; Stonehouse, 2; Blantyre, 2; Dalserf, 1; New Monkland, 1; Shotts, 1.

Institutions.

During the year 5,078 Middle Ward patients, and 584 patients from areas outwith the Middle Ward, were admitted to the various institutions, making a total of 5,642 admissions. The respective institutions are dealt with separately in another section of this Report.

The following statistical tables, F (a) and (b), give detailed information with regard to the admissions:—

TABLE F.—HOSPITALS AND SANATORIA. (a) PATIENTS ADMITTED FROM MIDDLE WARD DISTRICT.
(Admissions as notified.)

HOSPITALS AND SANATORIA.	NATURE OF CASES ADMITTED DURING YEAR.																									
	Cases in Hospital at the beginning of year.	Admitted during year from the Middle Ward.	Discharged	Died.	Cases remaining in Hospital at the close of year.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Puerperal Fever	Erysipelas	Pneumonia.	Influenza.	Pulmonary Tuberculosis.	Tuberculosis. All other forms.	Veneral Diseases.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Measles.	Whooping-cough	Continued Fever.	Chickenpox	Other Diseases.	Mothers.	Children.	Total.
Motherwell, -	162	1,993	1,820	159	176	549	677	20	9	86	45	233	2	5	55	66	26	7	56	9	—	—	148	—	—	1,993
Lightburn, -	23	216	200	14	25	47	119	—	—	—	8	34	—	1	—	—	—	—	—	—	—	1	6	—	—	216
Shotts, -	51	138	115	23	51	—	—	—	—	—	—	—	—	107	31	—	—	—	—	—	—	—	—	—	—	138
Stonehouse, -	64	69	58	3	72	—	—	—	—	—	—	—	—	—	47	—	—	—	—	—	—	—	22	—	—	69
Longriggend, -	42	159	139	14	48	—	—	—	—	—	—	—	—	87	71	—	—	—	—	—	—	—	1	—	—	159
Hairmyres, -	135	211	154	—	192	—	—	—	—	—	—	—	—	92	119	—	—	—	—	—	—	—	—	—	—	211
Dalsersf, -	16	16	18	—	14	—	—	—	—	—	—	—	—	—	16	—	—	—	—	—	—	—	—	—	—	16
Bellshill, -	43	1,542	1,516	36	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	963	579	1,542
Calderbank House, -	41	612	605	13	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	235	377	612
Blantyre, -	7	122	112	5	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77	45	122
TOTALS, -	584	5,078	4,737	267	658	596	796	20	9	86	53	267	2	292	339	66	26	7	56	9	—	1	177	1,275	1,001	5,078

TABLE F.—HOSPITALS AND SANATORIA. (b) PATIENTS ADMITTED FROM AREAS OUTWITH THE MIDDLE WARD DISTRICT.

AUTHORITY.	COUNTY HOSPITAL, MOTHERWELL.				COUNTY SANATORIA.					BELLSHILL HOSPITAL.		CALDERBANK HOUSE.		BLANTYRE HOSPITAL.	
	Diphtheria.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Pneumonia.	Tuberculosis.	Veneral Diseases.	Other Conditions.	Shots.	Stonehouse.	Uppertown.	Hairmyres.	Dalsert.	Mothers.	Children.
Upper Ward, -	20	99	-	2	14	4	8	26	-	-	-	2	-	67	41
Lower Ward, -	1	-	-	1	1	-	4	2	-	2	-	-	-	49	39
Airdrie, -	-	-	-	4	3	-	4	1	-	-	-	2	-	-	-
Coatbridge, -	-	-	-	3	-	-	5	1	-	-	-	-	-	-	-
Hamilton, -	2	1	-	4	6	1	13	7	1	3	-	12	-	-	-
Motherwell and Wishaw,	-	-	-	-	-	-	15	1	-	1	-	1	-	-	-
Rutherglen, -	-	1	-	-	-	-	-	3	-	-	-	3	-	-	-
Clydebank, -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Peeblesshire, -	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Ayrshire, -	-	-	-	1	-	-	-	-	-	-	-	-	4	-	-
Berwick, -	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-
Dunbartonshire, -	-	-	-	6	-	-	1	1	-	-	-	-	-	-	-
Glasgow, -	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-
Greenock, -	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-
Lanark, -	-	-	-	-	-	-	3	3	-	-	-	-	-	17	8
Renfrewshire, -	-	-	-	-	1	-	-	-	-	-	-	4	-	1	2
Inverness, -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Paisley, -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Stirling, -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Military, -	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Totals, -	24	101	-	21	27	5	54	45	1	6	-	44	-	136	90
	-	-	-	-	-	-	-	-	-	-	-	-	-	15	12
	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-

Tuberculosis.

Mortality.—The deaths from all forms of tuberculosis numbered 187, viz. :—Pulmonary, 117; meningeal, 36; abdominal, 24; and other forms, 18. In the following table the deaths are classified in age periods:—

Ages,	- 1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Pulmonary,	- 2	6	2	2	28	30	24	20	3	117
Meningeal,	- 10	22	1	—	3	—	—	—	—	36
Abdominal,	- 3	11	2	2	3	—	—	2	1	24
Other forms,	- 1	3	1	4	3	3	1	1	1	18
Total,	- 16	42	6	8	37	33	25	23	5	195

Death-rates. — The death-rates per 10,000 of the population were:—

	Pulmonary.	Meningeal.	Abdominal.	Other Forms.
1924, - -	5.5	2.5	1.8	0.7
1925, - -	5.6	1.6	1.9	0.5
1926, - -	5.2	1.3	1.4	1.0
1927, - -	4.7	1.2	1.2	0.6
1928, - -	4.8	1.5	1.0	0.7

The average quinquennial death-rates per 10,000 of the population since 1891-1925, and for the years 1926, 1927, and 1928, are shown in the following table:—

Years.	Pulmonary.	Non-Pulmonary.	All Forms.
1891-1895, - -	13.57	9.88	23.45
1896-1900, - -	11.44	9.11	20.55
1901-1905, - -	10.00	8.31	18.31
1906-1910, - -	8.83	8.56	17.39
1911-1915, - -	8.16	6.53	14.69
1916-1920, - -	7.57	5.28	12.85
1921-1925, - -	5.93	4.83	10.76
1926, - -	5.27	3.91	9.18
1927, - -	4.78	3.12	7.90
1928, - -	4.89	3.26	8.15

The death-rates per 10,000 of the population for 1928 show a slight increase with the rates obtained in 1927. This has to be recorded as the first break in the steady decline of the figure since 1891. The increase is so small that no conclusion of any importance could be drawn from it.

Notification.—There were on record at the beginning of the year 1,343 cases of pulmonary and 1,647 cases of non-pulmonary forms of the disease, and during the year 333 new cases of the former type and 388 new cases of the latter were brought to notice, giving a total of 1,676 and 2,035 cases respectively. The following tabular statement shows the number of new cases notified by medical practitioners, and those not so notified, the latter being cases which came to the knowledge of the department through dispensaries or from the Registrar's death returns :—

	Pulmonary.	Non-Pulmonary.
New cases notified, - - - -	239	264
„ „ not notified, - - - -	94	124
	<hr/> 333 <hr/>	<hr/> 388 <hr/>

The above figures show a slight decrease in the number of new cases.

During the year 354 patients were sent to these Clinics by their own medical attendants, 175 were asked to attend by members of our own outdoor staff, 25 were sent by the School Medical Authorities, 328 attended of their own accord, a total of 882; 172 of which proved to have some tuberculous infection.

The new cases were dealt with as follows :—

	Pulmonary.	Non-Pulmonary.
Admitted to Sanatorium, - - -	172	157
Refused to go to Sanatorium, - -	60	50
Died before or soon after notification, -	52	56
Inmates of asylums, &c., - - -	—	—
Visitors or left district, - - -	13	11
Unsuitable for institutional treatment, -	14	37
Waiting treatment towards end of year,	12	11
Out-patient treatment at dispensaries and other institutions, - - -	10	66
	<hr/> 333 <hr/>	<hr/> 388 <hr/>

Where a patient receives both sanatorium and out-patient treatment during the year, the sanatorium treatment is shown in the foregoing table in preference to the out-patient treatment.

Types of Non-Pulmonary Cases.—The 388 new cases are classified in the following statement according to the localisation of the principal lesion present at the time of notification :—

Cervical glands, - - -	150	†Special organs, - - -	14
Abdomen, - - -	94	Skin and sub-cutaneous	
*Bones and joints, - - -	72	tissue, - - -	4
Meninges, - - -	41	Lupus, - - -	8
General, - - -	5		
			<hr/> 388 <hr/>

Distribution throughout District.—The parishes of residence are given in Table E.

Age, Sex, and Diagnosis.—The following table shows the new cases classified according to age, sex, and diagnosis. The diagnosis may not have been verified for a variety of reasons; *e.g.*, the patient may have been under observation for an insufficient period, may have refused examination, or the disease may have been found to be non-tuberculous :—

Pulmonary Tuberculosis.—333 cases notified.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Diagnosis of Tuberculosis verified.
Males, -	13	15	14	37	33	35	25	4	176	107
Females	11	16	19	43	36	12	19	1	157	97

Non-Pulmonary Tuberculosis.—388 cases notified.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Diagnosis of Tuberculosis verified.
Males, -	82	35	27	23	15	5	9	1	197	147
Females,	57	42	29	36	10	11	4	2	191	151

* *Bones and Joints—Detailed.*—Spine, 17; Hip Joint, 11; Knee Joint, 10; Ankle Joint, 3; Elbow Joint, 3; Tibia, 1; Dactylitis, 13; Femur, 1; Occipital bone, 1; Radius, 1; Humerus, 2; Metatarsal, 1; Ribs, 2; Wrist, 2; Fibula, 1; Sacro-iliac, 2; Os-calcis, 1.

† Eyes, 7; Ischio-rectal abscess, 2; Otitis media, 2; Ganglion (foot), 1; Testicle, 1; Kidney, 1.

Statement showing cases where diagnosis was not confirmed, and the reasons. Altered diagnosis given in detail:—

PULMONARY TUBERCULOSIS.

				Males.	Females.
1. Suspected tuberculosis—tuberculised,	...			23	24
2. <i>Altered diagnosis</i> —					
Tuberculosis—abdomen,	...	...	...	—	1
Tuberculosis—general,	...	...	...	2	—
Tuberculosis—keratitis,	...	...	...	—	1
Tuberculosis—ear,	...	...	...	—	1
Chronic naso-pharyngitis,	...	...	...	1	1
Adenoids,	...	...	...	1	—
Pulmonary fibrosis,	...	...	...	15	6
Bronchitis,	...	...	...	6	5
Bronchitis and asthma,	...	...	...	—	1
Anthracosis,	...	...	...	1	—
Convalescent pleurisy,	...	...	...	1	—
Bronchiectasis,	...	...	...	—	2
Empyema,	...	...	...	2	—
Lobar pneumonia,	...	...	...	1	1
Nephritis.	...	...	...	1	—
Debility, anæmia, and malnutrition,	...	...	...	5	7
Tumour of lung—carcinoma,	...	...	...	1	1
Hodgkins' disease,	...	...	...	1	—
Pyloric ulcer,	...	...	...	1	—
Deviated nasal septum,	...	...	...	—	1
Purpura hæmorrhagica,	...	...	...	1	—
Valvular disease of heart,	...	...	...	—	1
No apparent disease,	...	...	...	3	3
3. Left district—diagnosis not established,	...			3	4

NON-PULMONARY TUBERCULOSIS.

					Males.	Females.
1. Suspected tuberculosis—tuberculised,	...				3	7
2. <i>Altered diagnosis</i> —						
Enteritis—non-tuberculous,	...	...	...	...	6	3
Constipation,	...	...	...	...	2	—
Appendicitis,	...	...	...	...	1	1
Bronchitis,	...	...	...	...	1	—
Pulmonary fibrosis,	...	...	...	...	1	—
Broncho-pneumonia,	...	...	...	...	1	—
Meningitis,	...	...	...	...	1	—
Cerebro-spinal meningitis,	...	...	...	...	2	—
Mental deficiency,	...	...	...	...	1	—
Infantile paralysis,	...	...	...	...	—	1
Scarlet fever,	...	...	...	...	—	1
Whooping cough,	...	...	...	...	—	1
Rickets,	...	...	...	...	6	2
Venereal disease,	...	...	...	...	1	—
Sarcoma—ilium,	...	...	...	...	1	—
Sarcoma—rib,	...	...	...	...	1	—
Septic adenitis,	...	...	...	...	8	7
Pyogenic abscess,	...	...	...	...	—	1
Branchial cleft,	...	...	...	...	1	—
Congenital dislocation of the hip,	...	...	...	...	—	1
Perthe's disease,	...	...	...	...	—	1
Synovitis, non tuberculous,	...	...	...	...	2	1
Hæmorrhage into knee joint,	...	...	...	...	1	—
Torn cartilage, right knee,	...	...	...	...	—	1
Contusion of back,	...	...	...	...	—	1
Malnutrition, debility, and anæmia,	...	...	...	...	4	4
Sub-nutrition,	...	...	...	...	1	1
No apparent disease,	...	...	...	...	2	4
3. Left district—diagnosis not established,	...				3	2

The following table gives the new cases classified in occupational groups:—

OCCUPATIONS.					Pulmonary.	Non-Pulmonary.
<i>Domestic Work—</i>						
Housewives,	...	...	...	...	48	26
Domestics,	...	...	...	...	11	12
Children,	...	...	...	...	26	144
Scholars,	...	...	...	...	74	138
<i>Miners, &c.—</i>						
Miners,	...	...	...	...	48	23
Pithead workers,	...	...	...	...	11	4
<i>Metal Workers—</i>						•
Steelworkers,	...	...	...	...	3	3
Blacksmiths,	...	...	...	...	1	1
Engineer,	...	...	..	...	1	—
Bolt worker,	...	...	...	...	1	—
Nail worker,	...	...	...	...	1	—
Others,	...	...	...	...	2	1
<i>Factory and Workshop—</i>						
Factory Workers,	...	...	...	...	8	3
Shoemakers,	...	...	...	...	4	—
Tailor,	...	...	...	...	1	—
Dressmakers,	...	...	...	...	2	—
Dye worker,	...	...	...	...	—	1
Laundress,	...	...	...	...	—	1
Joiner,	...	...	...	...	1	—
Paper-mill workers,	...	...	...	...	3	—
Others,	...	...	...	...	2	2
Shopkeepers,	...	...	...	...	13	7
<i>Stone or Brickworkers—</i>						
Brick workers,	...	...	...	...	2	—
Builder,	...	...	...	...	1	—
Labourer,	...	...	...	...	1	—
Miscellaneous,	...	...	...	...	40	12
No occupation,	...	...	...	...	28	10
					<u>333</u>	<u>388</u>

Duration of Illness.—The duration of illness according to patients' own estimate at time of notification was as follows:—

Months,	-1	1-2	2-3	3-6	6-9	9-12	12-18	18-24	24 & over.	Not Known.	Total
Pulmonary,	34	29	23	63	37	11	21	11	83	21	333
Non-Pulmonary,	89	37	23	64	32	15	34	6	81	7	388

It will be noticed from the above figures that a large number of the cases are not notified for a considerable period after the onset of symptoms.

Home Conditions.—The following tables show the number of apartments and types of houses occupied by the patients and their families:—

Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	34	2	39	—	75
2	82	11	57	—	150
3	18	39	2	—	59
4	3	16	1	—	20
Over 4	2	11	—	16	29
					<hr/> 333 <hr/>

Of the 333 cases recorded, 75 resided in houses of a single apartment, 150 of two apartments, 59 of three apartments, and 33 of four or more apartments, while 16 were institution cases. The total number of persons in each class of house, with the average number per house and per room, were:—

Apartments.	1	2	3	4 and over.
Total inmates, - - -	395	901	337	158
Average number per house,	5.26	6.00	5.71	4.78
„ „ per room,	5.26	3.00	1.90	under 1.19

Non-Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	50	3	52	—	105
2	110	29	53	—	192
3	29	37	2	—	68
4	2	9	1	—	12
Over 4	—	6	—	5	11
					<hr/> 388 <hr/>

Apartments,	1	2	3	4 and over.
Total inmates, - -	542	1,102	461	119
Average number per house,	5.16	5.74	6.78	6.61
„ „ per room,	5.16	2.87	2.26	under 1.65

Institutional Treatment.—The following table shows the total number of all cases admitted and re-admitted to tuberculosis institutions. No case was sent to any institution outwith the County :—

Cases.	Shotts.	Stonehouse.	Uppertown.	Motherwell.	Lightburn.	Hairmyres.	Dalserf.
Pulmonary,	107	—	87	5	1	92	—
Non-Pulmonary,	31	47	71	55	—	119	16
	138	47	159	60	1	211	16

Sputa Examination.—Of the 333 cases notified, 117, or 35.2 per cent., gave a positive sputum result; 101, or 30.3 per cent., gave a negative result. In 115, or 34.5 per cent., no sputum examination was made.

Family History of Tuberculosis.—Of the 333 pulmonary cases and the 388 non-pulmonary cases brought to notice during the year a family history of tuberculosis was obtained, as follows :—

	Cases with Tuberculosis in other members of family.	Cases with Tuberculosis in other relatives.	Percentage of cases with positive family history.
Pulmonary, - . .	82	19	24.6
Non-Pulmonary, - . .	91	36	23.4

Deaths in relation to Notification.—The table given below shows the deaths classified according to the time which elapsed between the receipt of notification and the occurrence of death, and also the deaths of unnotified cases:—

Year.	Total Cases.	Fatal Cases.		Fatal Cases Notified—Period between Notification and Death.				
		Unnotified.	Notified.	1 Month.	1-3 Months.	3-6 Months.	6-12 Months.	Over 1 Year.
1908	301	43	141	40	36	21	18	26
1909	338	52	155	36	33	27	25	34
1910	370	30	131	34	30	16	22	29
1911	336	24	161	31	30	20	29	51
1912	365	22	138	30	20	26	19	43
1913	369	26	150	35	27	30	31	27
1914	274	16	123	21	21	17	17	47
1915	327	20	144	32	21	16	25	50
1916	340	17	149	32	25	20	22	50
1917	289	31	127	20	18	18	23	48
1918	395	50	124	29	22	17	16	40
1919	366	21	125	29	23	21	21	31
1920	355	17	144	43	19	19	21	42
1921	379	10	129	27	28	17	17	40
1922	368	11	120	37	21	17	17	28
1923	422	11	136	37	25	29	15	30
1924	415	11	122	24	18	23	11	46
1925	393	8	125	21	34	16	15	39
1926	399	6	119	25	21	14	13	46
1927	338	6	107	22	14	19	13	39
1928	333	7	110	25	14	17	14	40

The proportion of cases notified only a few months before death remains high.

Cases under Observation.—The cases dealt with each year are steadily increasing, and since 1919 the number has risen from 821 to 1,676 in the case of pulmonary tuberculosis, and from 813 to 2,035 for non-pulmonary tuberculosis.

Of the total number of 1,676 pulmonary and 2,035 non-pulmonary cases dealt with throughout the year, the following table shows the changes which took place :—

	Cases in District on 1/1/28.	New Cases.	Total on Register.	Left District.	Died.	Off list. Disease arrested or diagnosis revised.	Cases in District on 31/12/28.
Pulmonary,	1,343	333	1,676	130	137	105	1,304
Non-Pulmonary,	1,647	388	2,035	123	99	201	1,612
	2,990	721	3,711	253	236	306	2,916

STATEMENT SHOWING NUMBER OF PERSONS RESIDENT IN THE AREA AT 31ST DECEMBER, 1928, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		NUMBER OF KNOWN CASES									
		Under 5	5 and 10	10 and 15	15 and 25	25 and 35	35 and 45	45 and 65	65 and upwards	Total	
PULMONARY.*											
1. Tubercle	Bacilli	{	Males, —	2	3	48	44	29	34	—	160
found, ...	...	{	Females, —	1	6	45	25	23	14	—	114
2. Tubercle	Bacilli	{	Males, 13	100	92	103	97	81	74	7	567
not found, ...	...	{	Females, 17	96	106	88	63	55	36	2	463
NON-PULMONARY.†											
1. Abdominal,	...	{	Males, 49	76	45	33	2	1	—	—	206
		{	Females, 50	58	49	22	10	3	1	—	193
2. Spine, ...	...	{	Males, 11	7	8	10	4	1	2	—	43
		{	Females, 9	6	8	5	3	2	2	—	35
3. Bones and Joints	(exclusive of Spine),	{	Males, 21	37	42	42	9	7	12	1	171
	...	{	Females, 22	20	24	34	5	8	3	—	116
4. Superficial Glands,		{	Males, 44	86	77	53	30	5	8	—	303
		{	Females, 28	107	100	125	31	12	11	2	416
5. Lupus, ...	...	{	Males, —	1	—	4	2	1	1	—	9
		{	Females, —	4	6	3	2	4	—	—	19
6. Other parts	or	{	Males, 5	8	6	—	14	7	4	1	45
Organs,	...	{	Females, 7	16	11	5	7	6	4	—	56
TOTAL, ...			276	625	583	620	348	245	206	13	2,916

* Persons suffering from both pulmonary and non-pulmonary tuberculosis included under "Pulmonary" only.

† Persons suffering from multiple lesions classified according to the site of the principal lesion. No case included more than once in the return.

Cases of notified tuberculosis dying and classified to causes other than tuberculosis. It is to be noted that 8 pulmonary and 10 non-pulmonary cases died from some cause certified to be other than tuberculosis, viz. :

Pulmonary, 8 cases.—Whooping-cough, pulmonary tuberculosis, 2; acute lobar pneumonia, 2; tumour of lung, 1; myocarditis, emphysema, 1; purpura hæmorrhagica, 1; lymphadenoma, 1.

Non-Pulmonary, 10 cases.—Whooping-cough and tuberculous meningitis, 1; measles, tuberculous peritonitis, 1; gastro-intestinal influenza, general tuberculosis, 1; pertussis, acute broncho-pneumonia, 1; cerebro-spinal meningitis, 2; broncho-pneumonia, 2; sarcoma of right hip joint, 1; chronic bronchitis, carbuncle, hypostatic pneumonia, 1.

When tuberculosis appears as one of two causes of death, it is possible to find in the final classification that the other cause has taken preference; *e.g.*, tuberculosis in combination with malignant disease, measles, whooping-cough, or any of the diseases detailed in Groups 1 and 2 of the International List of causes of death.

Off List—

Pulmonary Tuberculosis, 105 cases.—In 38 instances the disease was arrested, and the patients had been free of symptoms for a sufficiently long period to justify the removal of their names from the register.

The diagnosis was altered as follows in 67 cases:—Chronic bronchitis, 13; pulmonary fibrosis (non-tuberculous), 13; emphysema, 1; asthma, 1; anthracosis, 1; chronic naso-pharyngitis, 4; adenoids, 1; deviated nasal septum (non-tuberculous), 1; debility, anæmia and malnutrition, 14; scoliosis, 1; whooping-cough, 1; sub-acute rheumatism, 1; cardiac disease, 1; pyloric ulcer, 1; no apparent disease, 13.

Non-Pulmonary Tuberculosis, 201 cases.—In 115 instances the disease was regarded as arrested, and in 86 the diagnosis was altered as follows:—Pulmonary tuberculosis, 4; pulmonary fibrosis (non-tuberculous), 1; chronic naso-pharyngitis, 1; malignant disease of rib, 1; diarrhœa, 8; chronic constipation, 1; appendicitis, 2; meteorism, 1; inguinal hernia, 1; cervical adenitis (septic), 17; chronic septic osteomyelitis, 1; branchial cleft, 1; infantile paralysis, 1; spastic hemiplegia, 1; simple meningitis, 1; arthritis (non-tuberculous), 3; trauma, 3; congenital dislocation of hip, 1; bunion, 1; rickets, 8; debility and malnutrition, 14; venereal disease, 3; no apparent disease, 11.

Duration of Illness at Death.—The table given below shows the fatal cases classified according to the total duration of illness :—

Duration.	MONTHS.								YEARS.						Un- known
	1-3	3-6	6-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10		
Pulmonary, -	11	14	25	24	11	7	6	4	1	4	1	—	15	14	
Non-Pulmonary, -	42	14	11	6	5	2	1	1	3	1	4	1	5	3	

Domiciliary Treatment.—Cases suitable for treatment at home, or who could not for some reason receive institutional treatment, were kept under observation by the Tuberculosis Officers and Nurse Inspectors, the latter of whom paid 19,803 visits during the course of the year.

During the year 163 cases received additional nourishment in the form of milk, eggs, butcher meat, and butter, at a total estimated cost of £926. In addition, supplies of malt and cod-liver oil were provided for those and other cases.

Out-Patient Clinics.

On 12th October new premises were officially opened in Victoria Street, Blantyre, as a Health Institute, giving the same facilities as obtaining at Cambuslang and Shotts for out-patient treatment of all minor ailments. The installation for artificial sunlight treatment was later added, and commenced on 25th January, 1929.

Table showing the work done at the clinics :—

	New Cases.	Re-attendances.
COUNTY ORTHOPÆDIC HOSPITAL, STONEHOUSE—		
Minor operations, - - -	345	53
X-ray examinations, - - -	299	91
Consultations, - - -	247	249
Artificial sunlight treatment, -	77	3,511
Electric treatment, - - -	5	99
Miscellaneous cases, - - -	28	60
COUNTY SANATORIUM, SHOTTS—		
Artificial sunlight treatment, -	48	1,826
HEALTH INSTITUTE, CAMBUSLANG—		
Artificial sunlight treatment, -	54	3,615
HEALTH INSTITUTE, SHOTTS—		
Minor ailments, - - -	9	75
HEALTH INSTITUTE, BLANTYRE—		
Minor ailments, - - -	203	627

Dispensary Treatment.—Five dispensaries—situated at Bellshill, Blantyre, Cambuslang, Larkhall, and Shotts—were in use, and the following table shows the record of the attendances:—

	New Cases.	Re-attendances.
Bellshill,	317	2,690
Blantyre,	93	1,231
Cambuslang,	152	3,127
Larkhall,	255	823
Shotts,	277	1,397
	<u>1,094</u>	<u>9,268</u>

The new cases attending the dispensaries are classified in the following tables according to age, sex, and diagnosis, and the persons who recommended them to attend:—

TABLE SHOWING CASES CLASSIFIED ACCORDING TO AGE, DIFFERENTIATING BETWEEN CASES NOTIFIED AND NOT NOTIFIED.

	0-5		5-15		15-25		25 and over.		Total.	
	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.
Bellshill,	11	77	28	112	12	22	15	40	66	251
Blantyre,	6	14	13	26	7	7	12	8	38	55
Cambuslang,	4	7	14	58	7	9	8	45	33	119
Larkhall,	2	28	5	106	4	42	9	59	20	235
Shotts,	8	32	18	134	11	26	18	30	55	222
Total,	31	158	78	436	41	106	62	182	212	882

TABLE SHOWING ADULT CASES CLASSIFIED ACCORDING TO SEX, DIFFERENTIATING BETWEEN CASES NOTIFIED AND NOT NOTIFIED.

	Males.		Females.	
	Notified.	Not Notified.	Notified.	Not Notified.
Bellshill,	17	28	10	34
Blantyre,	9	8	10	7
Cambuslang,	7	26	8	28
Larkhall,	5	40	8	61
Shotts,	15	18	14	38
Total,	53	120	50	168

TABLE SHOWING NOTIFIED CASES CLASSIFIED ACCORDING TO NOTIFICATION
AND PROVISIONAL DIAGNOSIS.

			Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Non-Tuberculous.
Bellshill,	-	-	24	34	8
Blantyre,	-	-	5	23	10
Cambuslang,	-	-	6	26	1
Larkhall,	-	-	7	11	2
Shotts,	-	-	11	40	4
Total,	-	-	53	134	25

TABLES SHOWING CASES NOT NOTIFIED SENT TO THE DISPENSARIES BY
DOCTORS IN THE DISTRICT, PUBLIC HEALTH STAFF, SCHOOL MEDICAL
AUTHORITIES, OR CAME OF THEIR OWN ACCORD, CLASSIFIED TO
TUBERCULOSIS—PULMONARY AND NON-PULMONARY, AND NON-TUBER-
CULOUS DISEASES.

By whom Sent	Type	Bellshill	Blantyre	Cambuslang	Larkhall	Shotts	Total	Total
Sent by Doctors, -	Pulmonary, -	22	1	8	2	7	40	354
	Non-Pulmonary, -	38	—	6	2	20	66	
	Non-Tuberculous,	60	22	14	58	94	248	
Sent by Public Health Staff, - - -	Pulmonary, -	9	—	3	1	3	16	175
	Non-Pulmonary, -	5	6	—	2	6	19	
	Non Tuberculous,	36	13	27	32	32	140	
Sent by School Med- ical Authorities, -	Pulmonary, -	5	1	1	5	2	14	328
	Non-Pulmonary, -	9	—	1	2	2	14	
	Non-Tuberculous,	62	11	57	118	52	300	
Came of own accord,	Pulmonary, -	1	—	—	—	—	1	25
	Non-Pulmonary,	1	1	—	—	—	2	
	Non-Tuberculous,	3	—	2	13	4	22	

EAR, NOSE, AND THROAT AILMENTS.

No. of Sessions.	No. of 1st visits.	No. of Re-visits.	Operations recommended.	Operations performed
20	22	11	15	12

The operations performed were as follows :—

Tonsils and adenoids,	-	-	-	5
Resection of septum,	-	-	-	4
Turbinectomy,	-	-	-	1
Antral puncture,	-	-	-	1
Cauterization of turbinals,	-	-	-	1
Total,	-	-	-	12

Two patients had double operation, viz. :—

Turbinectomy and resection of septum,	1
Resection of septum and antral puncture,	1

The difference in the number of operations recommended and operations performed is made up as follows :—

Operation elsewhere,	2
Operation refused,	1
	<hr/>
	3
	<hr/>

In addition—

3 patients were admitted directly to Calderbank House for operation as follows :—Chloroform examination and treatment, 1 ; adenoids, 2.

The second stage of septal resection was carried out on one patient who received operative treatment during 1927.

The 2 patients awaiting operation at the end of the year were dealt with as follows :—Resected spur of turbinal and adenoids, 1 ; cauterization of pharyngeal ulcer, 1.

Attendances at the Clinic were recommended from the following sources :—

Cambuslang Dispensary, - - - - -	3
Shotts do. - - - - -	1
Blantyre do. - - - - -	3
Larkhall do. - - - - -	2
Shotts Sanatorium, - - - - -	3
Longriggend Sanatorium, - - - - -	6
Medical Practitioners, - - - - -	1
Public Health Staff, - - - - -	3
	<hr/>
Total, . - - - -	22
	<hr/>

Deaths.—137 pulmonary cases and 99 non-pulmonary cases died. Of these, 84 and 75 respectively were of cases notified during the year.

The pulmonary death-rate for 1928 was 4·8 per 10,000 of the population, and the non-pulmonary, 3·2. The mortality for pulmonary forms is given in the following table, which shows the average annual number of deaths in each Registration District since 1891 :—

PULMONARY TUBERCULOSIS IN EACH REGISTRATION DISTRICT OF THE
MIDDLE WARD.—AVERAGE ANNUAL NUMBER OF DEATHS FOR
QUINQUENNIAL PERIODS 1891-1925, AND FOR THE YEARS 1926,
1927, AND 1928.

Registration District.	Population. Census 1921.	1891-95.	1896-1900.	1901-05.	1906-10.	1911-15.	1916-20.	1921-25.	1926.	1927.	1928.
Avondale, -	5,902	10·2	7·4	5	7	4	3·3	2·4	1	1	
East Kilbride, -	4,787	4·6	6·2	5·8	5·8	4·2	4·4	3·3	4	3	
Glasford, -	4,131	1·4	·8	1·2	1·2	3	·6	1	1	2	
Stonehouse, -	4,204	4·8	6·8	4·2	2	2·4	2·2	2	1	1	
Blantyre, -	18,154	18·2	17·6	22·2	15·6	19·3	16·1	17·2	14	10	
Bothwell, -	19,904	18	14·6	17·8	14	15·3	15·1	14·1	14	16	
Bellshill, -	20,934	10·6	18	13·6	15·4	16	19	16·1	15	10	
Holytown, -	18,579	13·4	11·4	13·4	16·8	13	14·1	8·3	14	11	
Cambuslang, -	26,130	28·4	25·4	27	19·4	24·1	25	16·4	18	10	
Cambusnethan, -	12,243	13·8	7·4	9·2	9·4	11·1	8	10·2	4	7	
Calderhead, -	4,007	2·2	2·8	2·8	2·6	1·4	4	2·3	2	2	
Dalserf, -	4,491	3·8	1·8	4·2	2·6	2·2	2·1	2·4	—	2	
Larkhall, -	14,974	12	14·2	12·6	7·4	7·3	7·4	6	5	2	
Dalziel, -	2,023	1·3	1·2	2·4	2·4	1·2	·8	1	2	2	
Hamilton, -	7,921	11	6·8	6	6·8	5·2	3·3	3·3	5	5	
New Monkland, -	13,773	14·6	18·2	11·6	14·2	9·2	7·4	5·3	8	7	
Old Monkland—											
East, -	2,435	2·2	1·2	1·8	2	2	1·4	1·2	—	2	
Coatbridge, -	2,910	2·8	2·6	1·8	2·6	2·3	1·4	1·1	1	1	
West, -	13,415	15·6	12	9·8	11·2	10·4	8·1	7	7	9	
Shotts—											
East, -	4,667	2·8	2·8	1·8	3	3	2·1	3·1	1	1	
Middle, -	3,605	1·2	1·6	1·6	2·2	1·1	1	1·1	2	2	
Calderhead, -	6,347	3	4·2	5·2	5·4	4·2	5·2	4·1	2	3	
West, -	4,660	4·6	5·8	4·8	4·6	3·1	3	3·2	4	2	
North, -	1,303	2·2	2·2	1·8	1·6	1·3	1·3	0·2	—	2	
TOTAL, -	218,817	203·2	193	187·6	175	168·1	161	132·3	125	113	11

Discharged Tuberculosis Soldiers.—Among the cases notified for the first time during 1928 were 3 discharged soldiers, all suffering from the pulmonary form of the disease. The relationship of the disease to military service according to the Ministry of Pensions was undecided.

Institutional treatment in sanatorium or farm colony was given to 2 cases; the other case refused in-patient treatment.

The total number of ex-service men dealt with throughout the year as suffering from tuberculosis was 84. In addition to domiciliary visits made to those cases by the Tuberculosis Officers and attendances made by the men at the dispensaries, 431 home visits were made by Nurse-inspectors—i.e., 2·1 per cent. of the total visits paid by them.

Institutional Treatment.—The work at the various institutions dealing with cases of tuberculosis is described by the respective Physician-Superintendents in the institutional reports.

Refractories Industries (Silicosis) Scheme, 1925.

Under "The Refractories Industries (Silicosis) Scheme, 1925, as from 1st May, 1925, only initial examinations are carried out by the Tuberculosis Officers of the County of Lanark, subsequent examinations being carried by the Medical Board set up under the scheme.

No initial examination were carried on under the above scheme during the year.

County Sanatorium, Shotts.

Physician Superintendent—

D. R. HAMILTON, M.A., M.B., Ch.B., D.P.H.

*Visiting Physician—*JOHN M'MILLAN, M.B., Ch.B.

*Matron—*Miss KEIR.

Administration.

BUILDINGS AND GROUNDS.—After prolonged deliberation, the remaining seams of coal under the existing buildings and to a safe distance beyond the limits of the original feu, have now been purchased from the Shotts Iron Company, Limited, at a cost of £4,500. Protection from future serious subsidence and wrecking of buildings is thus afforded, and such a course, though costly, would appear to be the most economical in the long run.

While some minor repairs may still be necessary from the effect of the old workings, it is gratifying to record that so trivial has been the damage during the past few years as to justify the removal in the latter part of the year of the wooden shoring against the outer walls of Pavilion II.

The extension to the administration block, providing additional accommodation for maids at a cost of £847, has been in use since March.

ACCOMMODATION.—Remains unchanged: 46 beds and 8 cots. The emergency bed in the sideroom, Pavilion II, is not included in this number. Of beds, 32 are allocated for males and 14 for females.

STAFF.—The Medical Staff is non-resident, and remains unchanged.

NURSING STAFF.—Matron, 2 sisters, 4 staff nurses, including nurse in charge of the out-patient clinic, and 5 probationers. A sixth probationer is required during the holiday period. Domestic Staff.—1 cook, 1 laundress, and 8 maids. The additional maid has been employed since the opening of the recreation hall and administration extension. Outdoor Staff.—1 gardener, 1 fireman, and 1 assistant gardener, who, in view of his increasing senile infirmity, is maintained in employment on short hours and reduced wages.

The out-patient clinic for artificial sunlight treatment has been continued during the year, and a detailed summary of the treatment undertaken is appended in another section of the report.

ADMISSIONS AND DISCHARGES.

Number of patients in residence at 1/1/28,	-	-	51	
„ „ admitted during year,	-	-	139	
„ „ discharged „ „	-	-	116	139
„ „ died „ „	-	-	23	
„ „ in residence at 31/12/28,	-	-	51	

PLACE OF RESIDENCE.—Of the total cases discharged, 138 resided in the District of the Middle Ward, the place of residence according to the parish being as follows:—

Avondale, - - - - 2	Dalserf, - - - - 3
East Kilbride, - - - - 3	Dalziel, - - - - 2
Blantyre, - - - - 16	Hamilton, - - - - 1
Bothwell, - - - - 45	New Monkland, - - - - 9
Cambuslang, - - - - 19	Old Monkland, - - - - 16
Cambusnethan, - - - - 15	Shotts, - - - - 7

The remaining case was admitted from Hamilton Burgh.

AGE AND SEX.—In the following table the patients are classified according to their age, group, sex, and type of disease diagnosed:—

Age Group	Sex		Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Tuberculised	Non-Tuberculous	Totals
	M.	F.					
Pre-School, - - - 5 years, -	8	9	12	7	3	5	17
School, - - - } -10 „ -	5	5	4	4	1	1	10
- - - } -15 „ -	14	5	5	5	4	5	19
Adolescent, - - - } -20 „ -	6	5	8	3	—	—	11
- - - } -25 „ -	10	3	9	2	1	1	13
- - - } -30 „ -	10	10	16	1	—	3	20
Early Maturity, - - - } -35 „ -	14	3	12	4	—	1	17
- - - } -40 „ -	3	8	8	3	—	—	11
- - - } -45 „ -	7	2	6	1	—	2	9
Late Maturity, - - - 45+ „ -	10	2	11	—	—	1	12
	87	52	81	30	9	19	139
	139		139				

DURATION OF RESIDENCE.—

	RESIDENCE IN DAYS		
	Maximum	Minimum	Average
Pulmonary Tuberculosis, ...	604	5	139
Non-Pulmonary Tuberculosis, ...	1,002	5	88
Tuberculised, ...	246	50	112
Non-Tuberculous, ...	186	9	77

TRANSFERS TO OTHER INSTITUTIONS.—After observation, or at the end of their period of sanatorium treatment, 31 patients were transferred to other institutions as follows :—

Hairmyres Colony,	-	-	-	-	-	21
Motherwell Hospital,	-	-	-	-	-	4
Stonehouse Hospital,	-	-	-	-	-	1
Calderbank House,	-	-	-	-	-	2
Hartwood,	-	-	-	-	-	2
Glasgow Royal Infirmary,	-	-	.	-	-	1

Pulmonary Tuberculosis.

81 CASES.

The omission of the usual table showing general results of treatment is because of a dissatisfaction with the terminology used therein. The term “improved” is only of vague significance in relation to a patient’s general condition, but conveys no idea of the degree of activity or the processes of arrest at the site of the disease. In an endeavour to ascertain how much real effect residence and treatment in sanatorium was having in bringing about the arrest and healing of the disease in the lungs, the following illustrative table was compiled :—

(1) Patients admitted with a persistently + spit,	-	-	27
(2) Patients discharged with + spit alternately with a - spit,	4		
(3) Patients discharged with a persistently - spit,	-	-	4
(4) Patients discharged with a persistently + spit,	-	-	19

In regard to (3) it may be recorded that in each, the results of clinical examination are closely correlated with the spit results, and all four may be regarded as true “arrests.”

In a general review of pulmonary tuberculosis during the year, attention is drawn to the unusually large number of acutely ill and advanced cases admitted. Indeed this year has been exceptional in this respect. The number of deaths is proportionately high. In a total of 81 cases, 20 deaths are recorded, and to this number must be added 8 others who were taken home by relatives in a moribund state, and whose deaths were certified within two weeks of discharge.

It is also of interest that the weight of this high mortality falls heaviest among the young adults. In the following table the age distribution of the fatal cases as against all cases is shown:—

Age Period, . . .	—5	—10	—15	—20	—25	—30	—35	—40	—45	45+	Totals
All Cases, . . .	2	4	5	8	9	16	12	8	6	11	81
Deaths in Sanatorium, 1	—	1	1	1	1	6	5	2	1	2	20
Deaths within 2 weeks of discharge, . . .	—	—	—	1	1	2	1	1	2	—	8
Total deaths, . . .	1	—	1	2	2	8	6	3	3	2	28

Here it will be seen that between the ages of 15 and 35, *i.e.* during adolescence and young adulthood, the mortality is high indeed, 18 in 45. The duration of illness amongst those 18 is represented thus:—

	Under 3 mons.	Under 6 mons.	Under 1 year.	Under 18 mons.	Under 2 yrs.	Under 3 yrs.	Under 4 yrs.	5 yrs. and over.
Number of fatal cases,	3	3	3	5	1	1	1	1

These figures would suggest that tuberculosis in the young adult inclines to a rapidly fatal issue, and tend to confirm the growing modern opinion that the problem of tuberculosis is narrowing itself to the ages of adolescence and young adulthood.

A further fact emerges from a scrutiny of the record sheets of these fatal cases—in all 7 females the onset of illness occurred either during the later months of pregnancy, or within six months after the confinement.

PULMONARY TUBERCULOSIS IN CHILDREN UNDER 15 (11 CASES).—Four of these children, 2 boys and 2 girls, aged between 11 and 14, suffered from the usual adult type of parenchymatous disease, with persistent positive spit. One of the boys died after 22 days, one whose condition had deteriorated, was taken home by parents against advice, while two were transferred to Hairmyres, their general and local condition considerably improved.

Two cases—a boy and girl, aged 9 years and 14 years respectively—were cases of tuberculous pleurisy, with effusion. Both were discharged with the disease quiescent.

One case—a girl of 5 years—was diagnosed as tuberculous bronchial adenitis. She was discharged home in a quiescent state after 207 days.

In the remaining 5 cases, the diagnosis was justified by the weight of evidence of previous and family history, clinical symptoms and signs, and supported in each case by strongly positive tuberculin skin tests. One of these children died within eight days of admission.

SPIT NEGATIVE PULMONARY TUBERCULOSIS (21 CASES).—This number includes the 8 children recorded above, and 4 others in whose cases the diagnosis was not established, but whose names were retained on the pulmonary list for further observation. The remaining 9 cases either conform to the Trudeau criteria of diagnosis or are old known positives whose local condition is either arrested or quiescent.

Non-Pulmonary Tuberculosis.

30 CASES.

TUBERCULOSIS OF BONES AND JOINTS.—Thirteen cases grouped as follows:—hip joint, 4; spine, 2; ankle joint, 2; other bones, 5.

A woman, an old standing case of 21 years' duration, was admitted with copious discharge from sinuses around right hip, white swelling of left knee joint, and general symptoms of acute toxæmia. Suppuration in the affected knee necessitated operative treatment in Motherwell Hospital. She was readmitted and subsequently died.

A similar case of hip-joint disease was a Ministry of Pensions patient. No improvement was recorded, and in six months, abscess formation requiring incision and drainage heralded a phase of more acute toxæmia with fever, abdominal pain, enlargement of liver, ascites, albuminuria, and marked prostration. He was taken home in a moribund condition and died a few days after discharge.

The spinal cases were both adults—one, advanced with extreme kyphotic deformity and copious discharge, died after 400 days—the other, early, with psoas abscess, with transferred to Stonehouse Hospital.

Both ankle joint cases were discharged, "disease arrested" being the result in one case, while, in the other, "general condition improved" and "minimal discharge" was recorded.

The bones of the face, arm, and leg were involved among the remaining five. Good results are recorded in each, and 3 were transferred to Hairmyres.

TUBERCULOSIS OF LYMPHATIC GLANDS.—Seven cases. Cervical and axillary glands only were involved. Three adults with enlarged hyperplastic glands and 4 children with the fibro-caseous type of disease and sinuses. Diminution in glands and arrest of discharge is recorded in all 7 prior to discharge. It is of interest to note that ultra-violet ray treatment was given in each case.

ABDOMINAL TUBERCULOSIS.—Seven cases. In two of these seven, the diagnosis on admission was adhered to—the period of residence being too short to permit of adequate observation and confirmatory tests. The diagnosis in the other 5 was established during residence. In each, positive tuberculin skin tests were recorded, and other diagnostic signs occurred as follows:—tumidity, 4; resistance, 3; tenderness, 2; ascites, 2; adhesive masses, 2; purulent discharge from abdominal sinuses, 2; prominent abdominal veins, 2. All 5 were children, and one child had two periods of treatment during the year.

TUBERCULOUS EPIDIDYMITIS.—Two cases. One, an old case of some 4 years' duration, was admitted with generalised tuberculosis involving bladder, kidney, spine, and lungs. After prolonged treatment arrest of the disease in the spine, diminution of pulmonary activity and bladder symptoms, was recorded. He was discharged as a disciplinary measure, and has died since discharge.

A Ministry of Pensions patient whose right testicle had been amputated in 1926, was admitted with occurrence of tuberculosis in the left. Treatment with fortnightly injections of bacillary emulsion in graduated doses effected a relief of symptoms, and a diminution of swelling. He was discharged later with disease arrested, and resumed his occupation. No recurrence has been reported to date.

TUBERCULOSIS OF SKIN.—One case of typical lupus vulgaris exedens. Great improvement with ultra-violet ray and tuberculin treatment is recorded. Several active nodules round periphery of diseased area were still present when discharge was unavoidably necessary.

Tuberculised Children.

9 CASES.

This classification is reserved for those children in whom no diagnostic localising signs were detected, but who responded in varying degree to tuberculin skin and subcutaneous tests.

While these patients do not take home with them the stigma of a positive diagnosis, they remain under domiciliary and dispensary supervision as "susceptibles," and the occurrence of active disease to which their "susceptibility" may readily expose them is noted and brought under treatment with the least possible delay. Whether

these children are, on the average, more “susceptible”—the rank and file from which the active disease victims emerge in young adulthood, or whether their tuberculisation in childhood is really a process of immunisation, is still a matter of doubt. Some more years of experience will provide a truer perspective of this problem.

The following figures indicate the site of symptoms and signs:—

Tuberculised with Pulmonary symptoms,	-	-	-	5
„ „ Abdominal „	-	-	-	2
„ „ Meningeal „	-	-	-	1
„ „ General „	-	-	-	1

Among the 5 cases with pulmonary symptoms is included one young adult male of 24 years, admitted with some debility, cough, spit, and dyspnœa of seven months' duration. The subcutaneous injection of 50 cm. of Koch's old tuberculin produced a marked local and intradermal reaction and a definite general reaction. While no justification could be established for a diagnosis of pulmonary tuberculosis, this sensitivity to tuberculin could not be disregarded.

All were discharged much restored in general health and might from one point of view be regarded as “arrested” cases in whom the actual focus of disease was not discovered.

Non-Tuberculous Diseases.

19 CASES.

The following table shows the diagnosis prior to admission, and the established diagnosis on discharge:—

Admitted as Pulm. Tuber.		Admitted as Abdom. Tuber.		Admitted as T.B. Glands.		Established Diagnosis.
Adult	Child	Adult	Child	Adult	Child	
—	—	—	—	—	1	Hodgkin's Disease.
—	—	—	1	—	—	Rickets.
—	1	—	—	—	—	Malnutrition and Bronchitis.
—	—	—	1	—	—	V.D.H.
1	—	—	—	—	—	Post-op. Debility and Kyphosis.
—	—	—	1	—	—	Gastro-Enteritis.
—	1	—	—	—	—	Pneumonia following Whooping-Cough.
1	—	—	—	—	—	Post-Influenzal Debility and Bronchitis
—	—	—	1	—	—	Enteritis.
1	—	—	—	—	—	Bronchitis and Emphysema.
1	—	—	—	—	—	Chronic Bronchitis.
—	1	—	—	—	—	General Debility and Scoliosis.
3	1	—	—	—	—	Pulmonary Fibrosis.
—	—	1	—	—	—	Chronic Constipation.
—	1	—	—	—	—	Asthma and Bronchitis.
—	—	—	1	—	—	Debility and Bronchitis.

Of the 11 children detailed above, 7 were retained until the local symptoms had abated and the general condition restored. Two others were taken home by the parents before the maximum improvement could be recorded.

The child with pneumonia following whooping-cough was transferred immediately to Motherwell Hospital, and the boy with Hodgkin's Disease was removed to Glasgow Royal Infirmary, where he ultimately died.

Tuberculin Treatment.

Specific treatment of tuberculosis since its disastrous introduction some 40 years ago has received little more than indifferent recognition by the medical profession, and even in those centres where it has been extensively used "results favourable to its use" or "a favourable opinion" is about the most enthusiastic experience recorded. While the enthusiasts are few, yet those who regard it with disfavour are few, and many are in favour of its application in suitable cases, and with reservations when beneficial results may be expected.

In the latter spirit has it been employed during the year as an adjunct to the hygienic and dietetic régime of our Sanatorium treatment. Pulmonary and non-pulmonary forms of the disease have been included in the scope of the work, and the method of treatment and type of tuberculin used, differs according to the form present. The significant factor in this regard is auto-inoculation, and the latter, with all its troublesome symptoms, is the rule in pulmonary and the exception in non-pulmonary forms. Three tuberculins have been used—Koch's T., T.R., and B.E. On broad lines T. has been used for the pulmonary or autotoxic types, and B.E. for the non-pulmonary or localised types.

The total number of cases is small and the remedial effect of sanatorium treatment without the bias of any pet remedy, is so very well established by clinical experience that the "beneficial results" are difficult to assess. Further, it is almost an impossibility to present an illustrative statement of results which is not coloured even to some slight degree by the personal conclusion of the writer, and therefore on these grounds let suffice meanwhile the unarranged and bald statement given belows:—

Total Number of cases commencing treatment.	Numbers completing a course of treatment.			Treatment discontinued.
	Quiescent.	No beneficial effect noted.		
Pulmonary or Auto-toxic T.B.,	14	8	3	3
Non-pulmonary or localised T.B.,	4	2	1	1
Tuberculised,	1	1	—	—

The "Treatment discontinued" column does not hide any "disasters." The non-pulmonary types included 2 cases of abdominal tuberculosis, 1 tuberculous epididymitis, and 1 lupus vulgaris.

Artificial Sunlight Treatment.

OUT-PATIENT CLINIC.

PREAMBLE.—The clinic, equipment, and staff have been maintained exactly as at its installation eighteen months ago. Early in the year a defect in the arc tube of the original burner necessitated its replacement by the makers, but with this exception little difficulty has been experienced in the manipulation of the apparatus or the routine application of the therapy.

The accommodation at the disposal of the Clinic, particularly in regard to waiting-rooms and dressing-rooms, has proved inadequate, and indeed must be considered quite unsuited for the reception and disposal of out-patients.

The isolated position of the Sanatorium, the varied types of patients and diseases, and the frequent and regular exposures required under the method of treatment by graduated dosage, have proved obstacles to any effective utilisation of the present premises, and the best efforts of a sympathetic nursing staff have succeeded only in mitigating inconvenience and discomfort for waiting patients.

While this particular reason has actually been given in a comparatively few cases for a rather haphazard enthusiasm or a complete discontinuation of the treatment by the parent or the adult patient, yet its influence could be sensed in a much larger number of cases, and the critical observer must bear it in mind as he reviews the annexed tabulated summary of work done.

Of course, it may be well to remember here that this clinic was originally proposed for the Shotts Health Institute, and that its installation at the Sanatorium was only a makeshift procedure until such time as electric power was available in the Institute. An early realisation of the original plan would be the only adequate solution of the difficulty.

The selection of patients from the neighbouring tuberculosis dispensaries and child welfare centres and from other sources in

the Middle Ward within the purview of the Public Health Department, has been departed from in a few cases when the application for treatment was accompanied by an appeal from the medical practitioner. It was not deemed prudent in this matter to maintain an over-zealous interpretation of the strict purpose of the clinic.

The method of treatment by determining the erythema dose and increasing the exposures at subsequent attendances by graduated doses has been continued. It will be readily granted that there is no single method of ultra-violet irradiation equally effective for every type of case, and it is not claimed for the method outlined here that it has the best or even uniformly good results, but it has been adopted of necessity where the daily routine treatment is not under the guidance and observation of the medical officer. Unempirical, and therefore eminently safe under the circumstances, it has proved of certain benefit in different tuberculous conditions, and in rickets and other nutritional disturbances. However, its results in some other diseases, *e.g.*, alopecia and lupus erythematosus, have not most assuredly been an adequate reward for the expense and trouble.

In reviewing the work of the Clinic during the year, although the actual diseases treated embraces quite a wide field in tuberculosis and child welfare, the paucity of numbers forbid any exact conclusions as the effect of ultra-violet light in any particular disease. but sufficient solid evidence is available to indicate its use and merit in both these branches of Public Health activity.

In the treatment of tuberculous disease, ultra-violet radiation exerts a curative effect in tuberculous glands and tuberculosis of skin, while in rickets and malnutritional disorders, which, in the industrial and semi-urban area of the Middle Ward, offer a wide field of work in child welfare, its benefits to health cannot be too highly praised. In all these diseases, indeed, such beneficial reactions have been recorded within the limited scope of the practice that better facilities and a wider field of application can be justifiably recommended. For instance, the present lamp is undoubtedly very suitable in the varied type of work undertaken, and is equally useful in general and local treatment, but it does not permit of any great extension in numbers treated under the present staffing arrangements.

In the tables summarising the treatment in the 1927 report, the term "cured" has given way to "arrested" in tuberculosis, and

“much improved” in maternity and child welfare. These alterations are intended to eliminate false impressions. It is now generally admitted that the word “cure” in regard to tuberculosis is rather loosely applied, and should be reserved for the exceptional case on its strictest application. In the case of rickets and malnutrition, it is not claimed for this treatment specific powers to the exclusion of that natural hygiene, fresh air, adequate and suitable food, &c., which are necessarily the true ideal in human existence.

The following table shows the number of patients dealt with, and the total treatment given under Tuberculosis and Maternity and Child Welfare Schemes:—

	Number of Patients commencing treatment.	Total Number of Irradiations.	Total Irradiations (in minutes).	
			General.	Local.
Tuberculosis Scheme,	73	1,826	51,603	9,320
Maternity and Child Welfare Scheme, -	39	477	6,708	370
Totals, -	112	2,303	1,133 hours.	

DISEASES DEALT WITH.—It will be convenient to consider these under the headings “Tuberculosis Scheme” and “Maternity and Child Welfare Scheme.”

PATIENTS UNDER THE TUBERCULOSIS SCHEME.—73 cases.

Total attendances—1,826.

The following table shows the types of diseases dealt with and the progress made under treatment:—

Diseases	Number of Cases commencing treatment	Treatment Completed.					Treatment Dis-continued.	Continuing treatment.
		Total	Arrested	Imp.	I. S. Q.	Worse		
T.B. Adenitis, with sinus, -	16	11	6	2	1	2*	3	2
T.B. Enlarged Glands, -	10	3	3	2	—	—	4	1
T.B. of Skin, - - -	14	9	2	6	1	—	2	3
T.B. Bones and Joints, -	8	7	3	2	1	1+	1	—
T.B. Abdomen, - - -	3	3	1	1	1	—	—	—
T.B. Subcutaneous Abscesses,	1	1	—	1	—	—	—	—
T.B. Keratitis, - - -	1	1	—	—	1	—	—	—
T.B. Ten-synovitis, - -	1	—	—	—	—	—	—	1
Psoriasis, - - - -	1	—	—	—	—	—	—	1
Seborrhoeic Dermatitis, -	1	1	—	1	—	—	—	—
Rickets and Bronchitis, -	1	1	—	1	—	—	—	—
Infantile Paralysis, - -	1	1	—	1	—	—	—	—
Lupus Erythematosus, -	2	2	—	—	2	—	—	—
Alopecia Areata, - - -	2	—	—	—	—	—	1	1
General Debility with—								
Abdominal Symptoms, -	2	—	—	—	—	—	2	—
Neuritis, - - - -	1	—	—	—	—	—	1	—
Following Measles, - -	1	1	1	—	—	—	—	—
Anæmia, - - - -	3	3	1	1	1	—	—	—
Anorexia, - - - -	2	2	2	—	—	—	—	—
Malnutrition, - - -	1	1	—	1	—	—	—	—
Dermatitis, - - - -	1	1	—	1	—	—	—	—

*(1) a boy, *æt.* 14, with discharging sinuses after two scraping operations in Glasgow Royal Infirmary. After 9 irradiations acute and extensive suppuration developed, necessitating in-patient treatment in Motherwell Hospital.

*(2) A girl, *æt.* 17, with copious discharge from sinus following incision of gland abscess three weeks previously. After 17 irradiations, further gland abscess formation necessitated admission to Motherwell Hospital.

†A boy, *æt.* 4, discharged from Stonehouse one month previously with multiple scars of generalised osseous tuberculosis. The boy complained of anorexia and general lassitude, and ultra-violet treatment was given on this account. After 12 irradiations, the boy was eating better, was much brighter and livelier, and gaining weight. However, after 35 irradiations and 356 minutes, total irradiations, a relapse occurred in left elbow joint, and the boy was re-admitted to Stonehouse Hospital.

T.B. ADENITIS WITH SINUS.—16 cases. The maximum result is recorded in 6, or 55 per cent., of cases who completed the treatment. While the degree and severity, and the duration of treatment, varied, the result recorded is the same in all—generally, healed scars and glands subsided. The healing process was accelerated by ultra-violet radiation and promises to be less prone to relapse and the cosmetic result was reasonably good.

T.B. ENLARGED GLANDS.—10 cases. These glands generally of hyperplastic type, and less likely to undergo caseation, tend to subside with ultra-violet radiation.

One illustrative case is worth quoting.

An adult female, who had a history of enlarged neck glands of three years' duration—increased swelling in winter and diminution in summer—commenced treatment in June, 1927. At this time a chain of discrete enlarged glands, one on each side of right sternomastoid muscle, extended from the mastoid to the clavicle. The glands were easily visible, and the largest was about the size of a pigeon's egg. A slow and gradual diminution was noted, and at the completion of treatment, after 67 irradiations, in March, 1928, the swelling had subsided and only 4 shotty glands were palpable. No relapse has occurred to date.

T.B. OF SKIN.—14 cases. It is generally regarded that this type of tuberculosis is very effectively treated by ultra-violet radiation,

and one's own experience tends to confirm this. Only one case in a total of 8 failed to show any improvement, and the failure here may be attributed to the fact that the diseased area was deeply seated and obscured by cicatrix impermeable to the rays. All seven others benefited in varying degree, by a diminution in number of active nodules, and a resultant scar with comparatively little disfigurement.

Two cases are recorded in which the disease is stated to be arrested. 52 irradiations, general and local, sufficed in both to produce a uniformly white and almost invisible scar. The local treatment in one of them, where the diseased area was small, was done by the compressor.

The treatment is, of course, tedious, but provided the patient has the facility and patience to keep it up, and the disease is not too widespread or complicated by scar, an arrest of the activity can be confidently expected and possibly a "cure."

One's experience with ultra-violet treatment of lupus suggests that the local irradiation of the diseased area is the primary agency of the healing processes.

MATERNITY AND CHILD WELFARE SCHEME.—39 cases.

477 total attendances.

The following table shows the types of diseases and the progress made under treatment:—

Diseases	Total Cases commencing treatment	Treatment Completed					Treatment Dis- continued	Continuing treatment.	
		Total	Much Imp.	Imp.	I. S. Q.	Worse			
Infants and Children—									
Rickets,	14	7	—	4	1	2	7	—	
Malnutrition,	10	8	2	5	1	—	2	—	
Debility following Pneumonia,	1	1	1	—	—	—	—	—	
Infantile Paralysis,	2	—	—	—	—	—	1	1	
P. B. and Congenital Debility,	1	—	—	—	—	—	1	—	
Anæmia,	1	—	—	—	—	—	1	—	
Anorexia,	1	1	1	—	—	—	—	—	
Mothers—									
Alopecia Areata,	1	—	—	—	—	—	1	—	
Alopecia Cachectica,	1	1	—	1	—	—	—	—	
Anæmia,	1	—	—	—	—	—	1	—	
Neuritis,	1	—	—	—	—	—	1	—	
Rheumatoid Arthritis,	1	—	—	—	—	—	1	—	
Post Natal Debility,	2	2	—	1	1	—	—	—	
Chronic Osteomyelitis,	1	—	—	—	—	—	1	—	
Eczema,	1	—	—	—	—	—	1	—	

RICKETS.—14 cases. Treatment completed in 7.

It may be stated definitely that all the above cases were diagnosed on symptoms, or at least before osseous deformity was prominent, in the hope of utilising the lamp as an additional prophylactic measure

to the administration of cod-liver oil, and in no case was the latter withheld to reveal specific anti-rachitic properties in ultra-violet rays.

Definite improvement is recorded in 4, or 57 per cent. of cases treated, and the improvement consists in a general invigoration, increase of weight, diminution of troublesome symptoms of head, sweating, and alimentary disorders, a stimulus in some to the onset of walking and no increased osseous deformity was noted throughout the course of treatment. In the other three cases, intercurrent factors not associated with the treatment can account for the disappointing results.

MALNUTRITION.—10 cases. Treatment completed in 8.

The results here are very similar to those quoted under rickets, and there appears to be little doubt that rickety and under-nourished babies and toddlers respond, or at least receive a stimulus from ultra-violet radiations. They become brighter and more contented, their movements are more vigorous, and the mothers' eloquent testimony of "better in every way" or "a different baby" justifies some belief in the efficacy of the treatment.

In a community where the population have suffered grievously during the period of post-war industrial depression, and where natural sunshine is conspicuous by its rarity, one can advocate wholeheartedly the provision of an adequate artificial sunlight clinic in every Maternity and Child Welfare Centre.

Special Examinations and Treatment.

DENTAL TREATMENT.—Mr. Smith, L.D.S., Airdrie, made 5 visits to the Sanatorium during the year. Patients treated numbered 54; extractions, 190.

EAR, NOSE, AND THROAT CLINIC.—Four examinations were made by Dr. Adam at Motherwell Hospital Clinic. Tonsils and adenoids were removed in two cases at Calderbank, one at Stonehouse, and one was arranged for after discharge.

X-RAY EXAMINATIONS.—Of the patients discharged during the year, 47 were X-rayed at Motherwell Hospital, the examinations being necessary for diagnostic reasons.

In conclusion, grateful recognition is made of the services of the local Ministers and R.C. Clergy throughout the year. Also of the frequent concert and band entertainments to patients, voluntarily provided by local parties.

COUNTY ORTHOPÆDIC HOSPITAL, STONEHOUSE.

Physician-Superintendent—J. R. SUTHERLAND, M.B., B.Sc., D.P.H.

Visiting Physician—ALEX. M'LEAN, M.B., Ch.B.

Matron—Miss SHORE.

ADMISSIONS AND DISCHARGES.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
71	75	*62	3	81

*One patient was re-admitted and completed two periods of residence during the year, making a net total of 61 discharged and 3 died, and the subsequent statistics deal with the total of 64.

Place of Residence.—Of the total cases discharged 60 resided in the Middle Ward District, the place of residence according to parish being as follows:—

Avondale, - -	7	Dalserf, - - -	15
Blantyre, - -	6	Hamilton, - .	6
Bothwell, - -	10	Old Monkland, -	2
Cambuslang, - -	5	Shotts, - - -	3
Cambusnethan, -	1	Stonehouse, - -	5
		Total, - - -	<u>60</u>

The remaining 4 cases were admitted from Burgh of Hamilton, 1 ; Dumbarton, 1 ; Wishaw, 1 ; Lower Ward, 1.	4
Total, - - -	<u>64</u>

Age and Sex.—In the following table the cases are shown classified according to age and sex, and according to age groups for both sexes, each age group containing the tuberculous and non-tuberculous cases referable to it:—

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age—Groups.	Tuber- culous.	Non- Tuberculous.
— 5	5	8	13	Pre-School,	7	6
—10	6	9	15	School Age,	{ 9	6
—15	1	8	9		{ 7	2
—20	3	4	7	Adolescent,	{ 6	1
—25	3	4	7		{ 4	3
—30	1	1	2	Early Maturity,	{ 1	1
—35	—	2	2		{ 2	—
—40	—	1	1		{ 1	—
—45	—	1	1		{ —	1
—50	—	2	2	Late Maturity,	{ 1	1
—55	—	2	2		{ —	2
—60	2	—	2		{ —	2
—65	—	1	1		{ —	1
—70	—	—	—		{ —	—
					<hr/>	<hr/>
	21	43	64		38	26
					<hr/>	<hr/>

TUBERCULOUS DISEASE.

(38 cases.)

In 38 instances the diagnosis of tuberculous disease was confirmed.

SPINE (10 cases).

The cases are briefly described in the following notes which bring out the prognostic gravity of coincident tuberculous manifestations in other parts of the body. With our present knowledge of the disease and a fully developed scheme for the detection and treatment of tuberculosis, multiple lesions and discharging sinuses should be rarely seen amongst patients coming under treatment for the first time. Generalised tuberculosis may appear under the most favourable conditions if the infection is of great virulence or resistance of low degree. Examples of such cases are found in these notes where patients have become progressively worse in spite of having a mild and localised infection on admission. These cases must await the discovery of a specific means of exalting resistance to tuberculosis. There remain, however, many patients whose histories show that prospect of cure has been gravely impaired by delay in coming under specialised and prolonged treatment.

Without other tuberculous lesions.—M.6.—Arrested disease of mid dorsal region and active disease of 4th lumbar vertebra on admission. Apparently cured and no deformity of lumbar vertebra on dismissal; residence, 763 days.

F.17.—Paraplegia, bed sores, incontinence of urine and faeces on admission. Died. 180 days' residence.

F.7.—Disease of 3rd to 9th dorsal vertebra, right facial paralysis and paraplegia on admission. Considerably improved when transferred to Motherwell Hospital with measles after 342 days' treatment.

F.11.—Disease of five years' duration on admission; developed two para-vertebral abscesses which healed with aspiration and without sinus formation. Dismissed with disease quiescent and wearing a jacket; residence, 1,017 days.

M.2.—Disease of 2nd, 3rd, 4th, and 5th dorsal vertebra. Disease quiescent on dismissal and deformity slight; residence, 680 days.

M.25.—Disease of 11th and 12th dorsal vertebra and 1st lumbar vertebra. Disease quiescent on dismissal and deformity slight; residence, 713 days.

With other Tuberculous Lesions.—F.20.—With pulmonary tuberculous cervical adenitis. Went home I.S.Q.; no prospect of cure; residence, 56 days.

M.23.—With psoas abscess and tuberculous disease of the ulna. No prospect of improvement; I.S.Q. on dismissal; 249 days' residence.

M.7.—With dactylitis; disease appeared in another region of the spine, in the ankle, wrist, and subcutaneous tissue of the thigh and chest wall. Died; residence, 1,611 days.

M.5.—With dactylitis. Dismissed with disease quiescent and apparently well; residence, 598 days.

HIP JOINT (2 Cases).

M.6.—An early case on admission which, in spite of prompt treatment, developed ulceration of the joint surfaces and abscess formation. Considerable deformity and permanent disability on discharge; residence, 1,327 days.

F.14.—Disease of 10 years' duration; sinus on admission; healed on dismissal; 56 days' residence.

KNEE JOINT (3 Cases).

M.10.—White swelling of the joint with considerable deformity on admission. Bony ankylosis but useful limb on dismissal; 1,178 days' residence.

F.9.—White swelling and flexed joint on admission. No swelling, and useful joint on discharge; residence, 1,598 days.

F.23.—Multiple sinuses of 17 years' duration; persistent and prolonged hectic temperature. Amputation. 1537 days' residence.

ELBOW JOINT (3 Cases).

F.4.—Swelling and limitation of movement on admission; disease quiescent and good movement on dismissal. 206 days' residence.

M.16.—Disease of 8 years' duration; arrested disease of ankle and phalanx; sinuses of elbow on admission; sinuses healed on dismissal; joint stiff but useful; 166 days' residence.

F.5.—White swelling of joint and double dactylitis. Dismissed well. 259 days' residence.

SHOULDER JOINT (1 Case).

F.48.—Leg amputated on account of extensive disease of knee joint a year before; pulmonary tuberculosis; white swelling of shoulder joint, with abscess formation. Joint stiff but disease quiescent on going home; 97 days' residence.

VARIOUS BONE LESIONS (5 Cases).

M.4.—Disease of left malar bone with sinus; of frontal bone with abscess; of radius; or scaphoid with abscess; of phalanx with sinus; and of the subcutaneous tissue with several abscesses. All lesions healed after 794 days' residence.

M.23.—Extensive destruction of tarsus and metatarsus on admission. Amputation. Dismissed with sound stump after 57 days' residence.

F.11.—Cuneiform affected and sinus on admission. Sequestrum removed and dismissed well after 222 days' residence.

M.3.—Dactylitis with sinus on admission. Finger normal in appearance on dismissal. 608 days' residence.

F.33.—Tuberculous otitis media; radical mastoid operation performed outside; apparently dying on admission. Well on discharge; 270 days' residence.

ABDOMEN (3 Cases).

F 15.—Tuberculous peritonitis, non-febrile. Dismissed well after 283 days' residence.

F.13.—Ascitic peritonitis, non-febrile. Improved after 330 days' residence.

F.17.—Peritonitis with large and recurring effusion; febrile. Died after 24 days' residence.

GLANDS (9 Cases).

*Without abscess or sinus formation on admission (3 Cases).—*In two instances the glands became smaller and fibrotic after treatment by conservative methods. In the third case a large glandular mass in the axilla was excised.

*With abscess or sinus on admission (6 Cases).—*In five instances the sinuses were healed on dismissal, the treatment exhibited being varied to meet the different types of case.

In one case the sinuses persisted and the patient was found to have pulmonary tuberculosis.

OTHER LESIONS (2 Cases).

F.6.—Tuberculous granuloma of extensor tendons of foot. Excised. Dismissed well after 190 days' residence.

F.30.—Tuberculosis of kidney with large abscesses and old multiple lesions of bones. Inoperable. Dismissed I.S.Q. after 3 days' residence.

NON-TUBERCULOUS DISEASE.

26 patients were found to be suffering from non-tuberculous disease.

Sex.	Age.	Disease.	Result.	Residence in Days.	Remarks.
F.	3	Infantile paralysis.	Well	78	Admitted as T.B. hip.
F.	4	Congenital dislocation of hip.	Walking well	456	—
F.	5	Double genu valgum.	Minimal Deformity	136	Double osteotomy.
F.	9	Genu valgum.	Minimal Deformity	95	osteotomy.
F.	$\frac{6}{12}$	Fracture of femur.	Well	26	Injury at birth.

Sex.	Age.	Disease.	Result.	Residence in Days.	Remarks.
M.	22	Fracture of tibia dislocated semilunar cartilage.	Well	36	Cartilage excised.
F.	22	Dislocated semilunar cartilage.	Well	22	Cartilage excised.
F.	52	Arthritis of hip.	Improved	142	Sinus on admission.
M.	55	Pyogenic osteomyelitis of head of femur.	V.M.I.	103	Sequestrum removed.
F.	23	Synovitis of knee.	Well	366	—
F.	41	Tenosynovitis.	Well	49	—
F.	13	Scoliosis.	Improved	100	—
F.	49	Necrosis of inferior maxilla.	Improved	8	Sequestrum removed.
F.	26	Pyogenic gluteal abscess.	Well	67	—
M.	15	Retro-ocular abscess.	I.S.Q.	7	Transferred to Dalserf Hospital.
F.	1	Pyogenic inguinal adenitis.	Well	64	—
M.	1 $\frac{7}{12}$	Septic hernia scar.	Well	43	Transferred to Motherwell Hospital with measles.
F.	63	Whitlow.	Well	22	Amputation of finger.
M.	1 $\frac{1}{2}$	Inguinal hernia.	Well	{ 23 }	Radical operation.
M.	6			{ 64 }	
M.	59			{ 25 }	
F.	5	Tonsils and adenoids.	Well	{ 5 }	Operation.
F.	7			{ 5 }	
M.	8			{ 5 }	
F.	10	Debility.	Improved	65	Admitted as abdominal tuberculosis.

One patient, F.50, underwent two periods of treatment during the year. On the first occasion she was in hospital for three weeks, and a mass of axillary gland was removed. On section these were reported to be tuberculous. The swelling recurred and she was readmitted. Glands were again removed and sent to the pathologist for examination. On this occasion they proved to be sarcomatous in nature.

SPECIAL EXAMINATIONS AND TREATMENT.

DENTAL TREATMENT.—The visiting dentist made 8 visits during the year and treated 71 patients as follows:—

Extractions, 96; fillings, 34; total extractions under chloroform, 3.

EAR, NOSE, and THROAT SPECIALIST.—Four cases were referred to the consulting laryngologist, and the following conditions were diagnosed:—laryngeal spasm, 1; antral disease, 1; necrosis of vomer bone, 1; Turbinal hypertrophy, 1.

X-RAY EXAMINATION.—The provision of an up-to-date plant still awaits the supply of electricity by the Clyde Valley Co., and the disadvantages of the present apparatus, referred to in the previous year's report, still persist. The plant was modified to secure proper protection in accordance with the recommendations made in the report of the National Physical Laboratories. In spite of these disadvantages the X-ray apparatus is still rendering indispensable service, and during the year a total of 663 examinations was made, of which 273 were in respect of indoor patients, and 390 outdoor cases.

ARTIFICIAL LIGHT TREATMENT.—The equipment has not been modified or added to since its installation, and has been in constant use both for in-patients and out-patients.

ADMINISTRATION.

BUILDINGS AND GROUNDS.—The unsatisfactory conditions of overcrowding which obtained both in the administration block and in the wards unfortunately still persist. This subject has been referred to in detail in the annual reports of the Institution for the past three years. The Works Department carried out painting and various repairs in a most satisfactory manner.

ACCOMMODATION.—This remained unchanged and consisted of 79 beds. Throughout the year the accommodation was used as follows:—adult males, 22; adult females, 27; children and infants, 30.

STAFF.—*The Medical Staff* comprised a resident superintendent and a visiting physician who also acts as anæsthetist. *The Nursing Staff* was increased by one additional probationer, and, at the end of the year, consisted of one matron, 5 trained sisters, and 16 probationers. *Teaching Staff.*—one teacher full time (non-resident). *Clerical Staff.*—one clerkess, part time (non-resident). *Domestic Staff.*—the domestic staff was increased by one additional maid and comprised 1 cook, 1 laundrymaid, and 13 maids. *Outdoor Staff.*—one engineer (resident), 1 gardener-fireman (non-resident), and 2 gardeners (non-resident).

OUTDOOR DEPARTMENT.

1,001 patients were treated at the Outdoor Department. No patient was treated unless recommended by members of the County Medical Staff at the various Tuberculosis Dispensaries and Infant

Welfare Centres, or by medical practitioners in the Middle Ward of Lanark, in which also all the patients resided. For convenience they are classified as cases sent for consultation, operation, X-ray examination, electric treatment, and artificial sunlight treatment.

CONSULTATIONS

TUBERCULOUS DISEASES.	Pulmonary tuberculosis,	2
	Abdominal tuberculosis,	3
	Bones and Joints,	24
	Skin, Lupus of face,	2
	Glandular System,	11
NON-TUBERCULOUS DISEASES.	Pulmonary System,	3
	Digestive System,	6
	Nervous System,	13
	Diseases of Special Organs,	121
	Bones and Joints,	28
	Skin Diseases,	12
	Septic Diseases,	9
	Miscellaneous,	41

OPERATION CASES.

AMPUTATION.	Finger (ankylosis),	2
	„ (whitlow),	1
EXCISION.	Sarcoma,	1
	Angioma,	1
	Lipoma,	2
	Papilloma,	1
	Nasal polypi,	1
	Bursitis,	1
	Sequestrum,	1
	Sebaceous cyst,	3
	Ganglion,	1
INCISION.	Pyogenic abscess,	6
	Tuberculous abscess,	3
	Tumour,	1
	Septic periostitis,	2
ASPIRATION.	Psoas abscess,	1
	Perinephritic abscess,	1
	Glandular abscess,	1
	Hydrops knee,	2
	Periostitis,	1
	Hæmatoma,	1
	Sarcoma,	1
MANIPULATION AND REDUCTION.	Dislocation, elbow,	1
	„ semilunar cartilage,	2
	Fracture, humerus,	1
	„ phalanx,	1
	Sprain, elbow,	1
	Rheumatoid arthritis,	1
TONSILLECTOMY.	Tonsils and adenoids,	263
CIRCUMCISION.	Phimosis,	26
DENTAL EXTRACTIONS.	Dental caries,	11
EXTRACTIONS.	Foreign body, finger,	1
	„ „ leg,	1
	„ „ eyes,	1

X-RAY EXAMINATION.

BONES AND JOINTS.	Fracture,	44
	Dislocation,	7
	Injuries and Sprains,	27
	Tuberculous Diseases,	32
	Non-Tuberculous Diseases,	64
CHEST,		82
OTHER ORGANS AND MISCELLANEOUS.		43

ELECTRIC TREATMENT.

Rheumatoid arthritis,	4
Chronic dermatitis,	1

ARTIFICIAL SUNLIGHT TREATMENT.

TUBERCULOUS DISEASE.	<i>Bones and Joints.</i>	
	Elbow joint,	1
	Abscess of forearm,	1
	Hip joint,	1
	<i>Skin Diseases.</i>	
	Lupus,	1
	Cervical adenitis,	25
	<i>Digestive System.</i>	
	Abdominal,	5
NON-TUBERCULOUS DISEASES.	<i>Bones and Joints.</i>	
	Rheumatoid arthritis,	2
	Rickets,	
	<i>Nervous System.</i>	
	Infantile Paralysis,	1
	Neuritis,	1
	Sciatica,	1
	<i>Skin Diseases.</i>	
	Alopecia,	9
	Septic adenitis,	1
	Tumour of Neck,	1
	Eczema,	3
	Impetigo,	1
	Cellulitis,	1
	Perineal abscess,	1
	Pruriginoid eruption,	1
	Sinus after ovariectomy,	1
	<i>Miscellaneous.</i>	
	Bronchitis,	1
	Ear diseases,	5
	Phlyctenular keratitis,	1
	Debility and anaemia	4
	Fibro-myositis,	2
	Sycosis barbae,	1
	Enteritis,	1
	Endometritis,	1

COUNTY HOSPITAL, DALSERF.

Visiting Medical Officer.—Dr. J. R. SUTHERLAND.

Matron.—Miss M. LAMONT.

BUILDINGS.—The institution was used throughout the year as an auxiliary to Stonehouse Orthopædic Hospital, and dealt with patients of a similar type.

STAFF.—The staff remained unchanged, and consisted of a **matron**, two probationer nurses, a cook, a maid, and a gardener.

Accommodation.—The accommodation was unaltered, and consists of 5 cots and 11 beds, 6 of the latter being reserved for adult males and the remainder for children of both sexes.

PATIENTS.—16 patients were admitted and 18 discharged during the year.

PLACE OF RESIDENCE.—The parish of residence of those discharged during the year was as follows :—

Bothwell, - - -	6	Stonehouse, - -	1
Blantyre, - - -	3	Old Monkland, - -	1
Dalsersf, - - -	3	New Monkland, -	1
Shotts, - - -	2	Hamilton, - -	1
		Total,	18

AGE AND SEX DISTRIBUTION.

Years.	Males.	Females.	Total.
- 5	1	1	2
- 10	2	1	3
- 15	3	1	4
- 20	5	—	5
- 25	1	—	1
- 35	2	—	2
- 40	1	—	1
Total,	15	3	18

TUBERCULOUS DISEASE.—Twelve patients were found to be suffering from tuberculous disease, and the main features of the cases are set forth in the following statement :—

Sex	Age	Condition on Admission	Result	Residence in Days
M.	11	Spinal caries, 11th and 12th D.V., lumbar abscess and sinuses, swinging temperature, severe toxæmia.	Discharged in dying condition.	67
M.	18	Spinal caries, 10th and 11th D.V., large lumbar abscess.	I.S.Q. Transferred to Stonehouse.	16
M.	33	Spinal caries (lower dorsal), no abscess, no sinuses.	I.S.Q. Home, of own accord.	31
M.	33	Spinal caries (dorsal) and nephritis.	Worse—ascitis and ana-sarca.	141
F.	13	Old hip joint disease, with deformity and sinuses.	General condition improved, sinuses dry, deformity, I.S.Q.	411
M.	11	Old hip joint disease, with deformity and sinuses.	General condition and sinuses improved, deformity, I.S.Q.	797
M.	17	Knee joint, with sinuses and deformity.	I.S.Q. Home of own accord.	55
M.	15	Tuberculous osteitis of head of fibula, with sinus.	Well. Sinus healed.	213
M.	23	Multiple glandular and osseous lesions, with sinuses.	I.S.Q. Developed tuberculous cystitis.	294
M.	4	Dactylitis, with sinus.	Worse. Developed spinal caries (lower dorsal), transferred to Stonehouse.	440
F.	8	Tuberculous peritonitis, non-febrile.	Well.	447
M.	6	Tuberculous peritonitis, non-febrile.	Well.	368

NON-TUBERCULOUS DISEASES.—Six patients were found to be suffering from non-tuberculous diseases, and a brief description of the cases follows :—

Sex	Age	Condition on Admission	Result	Residence in Days
M.	35	Curvature of lower dorsal spine and injury to leg.	I.S.Q. Proved to be old fracture of spine and leg.	104
M.	12	Chronic osteomyelitis of femur, with sinuses.	I.S.Q. Developed retro-ocular tumour, transferred to Stonehouse.	1,097
M.	15	Syphilitic necrosis of hard palate and vomer.	I.S.Q. Transferred to Motherwell Hospital.	9
M.	14	Swelling in right iliac region, proved sarcoma.	I.S.Q.	13
M.	1½	Malnutrition, non-tuberculous.	Well.	176
F.	4	Admitted as spinal caries, proved hemiatrophy of pelvis.	Well.	156

County Sanatorium, Uppertown, Longriggend.

Physician-Superintendent—J. M'CALLUM LANG, M.D., D.P.H.

Visiting Physician—RICHARD RAE, M.B., CH.B., D.P.H.

Matron—Miss MORE.

ADMISSIONS AND DISCHARGES.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
43	159	*140	14	48
		154		

* Six patients were re-admitted, and completed two periods of residence during the year, making a net total of 140 discharged and 14 died, the subsequent statistics deal with the total of 148.

PLACE OF RESIDENCE.—Of the total cases discharged, 147 resided in the Middle Ward District, the place of residence according to parish being as follows:—

Avondale, - - -	1	Dalserf, - - -	11
East Kilbride, - - -	1	Dalziel, - - -	1
Stonehouse, - - -	2	Hamilton, - - -	3
Blantyre, - - -	9	New Monkland, - - -	21
Bothwell, - - -	40	Old Monkland, - - -	32
Cambuslang, - - -	13	Shotts, - - -	6
Cambusnethan, - - -	7		
		Total, - - -	147
Burgh of Airdrie, - - -	-		1
			148

AGE AND SEX.—In the following table the cases are shown classified according to age and sex, and according to age-groups for both sexes, each age-group also containing the pulmonary, non-pulmonary, and non-tuberculous cases referable to it:—

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age-Groups.	Pulm.	Non-Pulm.	Tuber-culised.	Non-Tuber-culous.
- 5	16	8	24	Pre-School, - -	—	10	—	14
- 10	16	16	32	School Age, - -	{ 1	12	11	8
- 15	5	16	21		{ 1	9	7	4
- 20	9	10	19		{ 9	3	3	4
- 25	3	5	8	Adolescent, - -	{ 3	2	—	3
- 30	6	8	14	Early Maturity, -	{ 8	3	1	2
- 35	8	4	12		{ 8	—	1	3
- 40	5	1	6		{ 6	—	—	—
- 45	4	4	8		{ 6	—	—	2
- 50	1	1	2	Late Maturity, -	{ 2	—	—	—
- 55	1	—	1		{ —	—	—	1
- 60	1	—	1		{ 1	—	—	—
- 65	—	—	—		{ —	—	—	—
- 70	—	—	—		{ —	—	—	—
	75	73	148		45	39	23	41

DURATION OF RESIDENCE.

RESIDENCE IN DAYS.

	Maximum.	Minimum.	Average.
Pulmonary, - -	462	2	118
Non-Pulmonary, - -	433	3	113
Tuberculised, - -	366	9	106
Non Tuberculous, - -	209	2	78

RESIDENCE IN MONTHS.

	0-1	1-3	-6	-9	-12	-18	-24	Over.
Pulmonary, - -	7	20	7	4	4	3	—	—
Non-Pulmonary, - -	6	10	19	3	—	1	—	—
Tuberculised, - -	1	13	6	2	—	1	—	—
Non-Tuberculous, - -	9	18	13	1	—	—	—	—

TRANSFERS TO OTHER INSTITUTIONS.—After observation or at the end of their period of sanatorium treatment, 25 cases were transferred to other institutions as follows:—

Motherwell, - - -	8	1 whooping cough, 3 diphtheria, 1 positive swab.
Calderbank, - - -	1	Ear, nose, and throat operation.
Hairmyres, - - -	14	
Stonehouse, - - -	1	
Bellshill, - - -	1	For confinement.

Pulmonary Tuberculosis.

(45 CASES.)

Included under this heading there is one case of active disease of the intrathoracic glands—leaving 44 cases of parenchymatous disease.

SUPPURATIVE MEDIASTINAL ADENITIS—ENLARGED THYMUS—Sudden Death.—J. O’N., aged 5, was admitted on 10/3/28 from the County Hospital, Motherwell, where an operation for empyema had been performed six or seven weeks previously. He was pale and debilitated, and a sinus in the operation scar discharged freely. His progress was slow, but satisfactory, and by the month of June the wound had healed completely and he was convalescent. Except for an occasional rise to 100° F., the temperature had been normal throughout; clinically and radiologically there was no evidence of fluid in the chest, but signs of a thickened pleura persisted. From June onwards he made excellent progress and was apparently restored to good health.

He was examined on 2/10/28 with a view to dismissal. The general condition was excellent, the temperature normal, pulse somewhat rapid, 108-112-120. He had no complaints, an excellent appetite, and was running about freely. The surface veins of the upper chest wall were considerably dilated however, and D’Espine’s sign was exquisitely positive. A provisional diagnosis of mediastinal adenitis was recorded, and the condition was assumed to be inactive on account of the total absence of symptoms. An X-ray examination on 9/10/28 showed thickening of the pleura at the right base and uniform enlargement of the upper mediastinum.

His dismissal from hospital was still under consideration when he complained of being short of breath while in bed on the evening of 12/10/28. This symptom passed off on the application of simple remedies, and he had a comfortable night. He was having breakfast in bed on the morning of the 13th when he suddenly collapsed and died.

The *post mortem* showed numerous caseating glands behind the bronchi from the bifurcation downwards; areas of caseation spreading downwards and outwards from hilus into the lung substance on the right side; fibrosis and shrinkage of the right base, dense adhesions,

no pus. Immediately under the sternum and in the upper mediastinum there was a large glandular mass with an unruptured abscess in the middle of it. It was suspected that the anterior wall of the abscess was formed by an enlarged thymus, and a section was thus reported on by the pathologist:—"Section proved to be thymus gland. Medullary and reticular portions increased; Hassal's corpuscles enlarged and show degeneracy. Changes associated with status thymico-lymphaticus."

DURATION OF ILLNESS.—The duration of illness recorded at the time of admission, and stated in monthly periods, was as follows:—

Classification on Admission.	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
Group I,	—	2	4	1	—	1	8
Group II,	—	1	2	2	2	13	20
Group III,	3	5	3	2	—	3	16

DURATION OF ILLNESS OF FATAL CASES.—Nine cases of pulmonary tuberculosis died, and the duration of illness from the date of onset to that of death was thus recorded in monthly periods:—

1-3	3-6	6-9	9-12	12-18	18-24	Over 24
1	1	2	—	2	—	3

GENERAL RESULTS OF TREATMENT.—The general condition of the patients on discharge is shown in the following tabular statement:—

Classification on Admission.	Quiescent.	Improved.	Stat.	Worse.	Died.
Group I,	7	1	—	—	—
Group II,	1	13	4	1	1
Group III,	—	2	3	3	8

These general results may be analysed briefly as follows:—

GROUP I—Quiescent, 7.—In all these cases the disease was quiescent on admission.

Improved, 1.—This refers to an improvement of the general health, the local condition remaining as on admission.

GROUP II—Quiescent, 1.—Active febrile disease on admission; afebrile and quiescent on discharge.

Improved, 13.—Febrile disease on admission; afebrile and sub-active disease on discharge—3 cases.

Post-active pulmonary tuberculosis with debility and bronchitis on admission; improvement of general condition on discharge—6 cases.

Disease sub-active on admission and kept sub-active by treatment, improvement of general health—4 cases.

Stationary, 4.—Duration of residence less than one month in all—4 cases.

Worse, 1.—Afebrile and negative spit on admission; febrile and positive spit on discharge.

Died, 1.—Fibroid phthisis and acute capillary bronchitis.

GROUP III—*Improved*, 2.—In both instances improvement refers to general condition (weight, colour, appetite). The disease was sub-active on dismissal, and early relapse almost certain.

Stationary, 3.—Local and general condition not affected by 281, 181, and 6 days' treatment respectively.

Worse, 3.—Went home to die; 74, 66, and 14 days' treatment.

Died, 8.—2 cases of acute phthisis; 2 cases of sub-acute phthisis; 4 cases of chronic phthisis.

It will be seen from this analysis that only in exceptional instances does sanatorium treatment reduce pulmonary tuberculosis from a state of activity to a stage of quiescence.

Statistical tables which set forth the results of treatment do not indicate the degree of activity obtaining at the commencement of treatment, and, as we have remarked, many cases are in a state of inactivity or sub-activity on admission, and remain in that condition on discharge from sanatorium. So far as the activity of the disease is concerned, these cases should be classified as remaining in *statu quo*. But, generally speaking, they are marked up as "arrested" or "quiescent," and it is assumed that this state has been brought about by sanatorium treatment; or they are classified as "improved," and the ordinary reader imagines that the local lesion has been partly healed and the ultimate outlook brightened. In the majority of cases, however, "improvement" merely refers to a betterment in general health. When it occurs immediately on admission to sanatorium, it suggests—and to my mind proves—that causes other than tuberculosis have been at work to occasion the condition of debility which was present on admission. If poor nutrition, general asthenia, and loss of appetite are due to active tuberculosis, it is irrational to expect an immediate and rapid response to such a general method of attack as sanatorium treatment. Nor does it occur when a case of active disease comes under our care. And, conversely, cases which are quiescent and sub-active on discharge from sanatorium lose weight

and become debilitated soon after their return to poor home circumstances, not because the disease immediately becomes more active, but because of dietetic and hygienic shortcomings.

With the exception of a few cases, our good results have been preventive rather than curative in character. Post-active, quiescent, and sub-active cases have been kept in their respective states, and the progress of the disease has been prevented. Their general health has been improved, and thereby their general resistance to disease. Cures and an exaltation of specific resistance to tuberculosis have not been common.

SPUTUM EXAMINATIONS.—Bacteriological examinations showed that 66 per cent. of the verified cases had tubercle bacilli in the spit:—

Classification on Admission.	Positive.	Negative.	No Spit.
Group I, - - - -	4	4	—
Group II, - - - -	12	7	1
Group III, - - - -	13	2	1

PULMONARY TUBERCULOSIS IN CHILDREN UNDER 15 (2 cases).—A boy of 5 years suffering from tuberculous abscess of the mediastinum has been referred to above.

A girl of 10 years, with definite signs of infiltration of one upper lobe, a characteristic swinging temperature, and secondary disease of intestines, went home in a dying condition.

SPUTUM NEGATIVE PULMONARY TUBERCULOSIS (15 cases).—Two patients had no sputum—one was dying of acute capillary bronchitis on admission and had previously shown definite X-ray and clinical evidence of fibroid phthisis; the other had acute phthisis, with abundant physical signs.

The confirmatory signs in the remaining 13 cases may be thus summarised:—

Positive X-ray.	No X-ray available.
With tuberculous meningitis, 1	Record of previous positive spit, 4
With hæmoptysis and crepitations, 1	Hæmoptysis and dullness, ... 1
With hæmoptysis, 2	Crepitations and ulceration of larynx, 1
With + + + tuberculin reaction and family history, ... 1	
With pleurisy, 1	
With spinal caries, 1	

An X-ray examination was regarded as positive when definite parenchymatous change was present in the upper half of the chest, and dullness and crepitations also refer to changes in the same location.

Non-Pulmonary Tuberculosis.

(39 CASES.)

Cases of non-pulmonary tuberculosis requiring only hygienic and nursing treatment were dealt with in the Institution, and those for whom operative interference or special appliances were necessary were transferred to the County Hospitals at Motherwell and Stonehouse.

ABDOMINAL TUBERCULOSIS (18 cases).—*Febrile*, 7.—Distension and resistance, 4 (3 died and 1 was apparently cured on transfer to Motherwell Hospital with diphtheria); distension and free fluid, 1 (transferred to Stonehouse Hospital worse); glandular and mesenteric tumours, 2 (both developed spontaneous fæcal fistulæ; 1 died and 1 was taken home by the parents in excellent general condition, but with a small fistula at the umbilicus.

Non-febrile, 11.—Operation diagnosis and no diagnostic signs, 4 (all dismissed well, disease quiescent on admission and on discharge). Discrete glands, 2 (dismissed well, disease quiescent on admission and discharge). “Doughy distension,” 1 (admitted moribund and died after three days’ residence). Glandular masses, 2 (both were taken home by the parents in excellent general condition and with the disease apparently quiescent. One case, M. 2½, contracted measles a month after leaving the Institution, and developed a spontaneous fæcal fistula in the region of the umbilicus. He became progressively worse, and died six months later. The other child, F. 2, also relapsed within six months, and was admitted to Shotts Sanatorium).

BONES AND JOINTS (1 case).—A child, aged 2 10/12, suffering from tuberculous dactylitis, was discharged with the finger healed and in good health after 155 days’ residence.

GLANDS (13 cases).—In one instance the glands were of the *multiple lymphoid type*, and the patient was discharged with the local condition unchanged and the general health improved.

Six patients had *glandular swellings without abscess formation* or with old healed scars on admission. In no case was the local lesion visibly improved, and 2 patients were transferred to Motherwell, 1 for excision of a single enlarged gland and 1 for incision of an abscess which formed during residence.

Six patients had enlarged *glands with sinuses* on admission. In 4 instances the sinuses were healed on dismissal; in two they were still discharging, when the parents took the children home after 20 and 72 days' residence.

In 3 of the cases referred to above there was *associated keratitis*.

LUPUS OF PALATE AND FAUCES (1 case).—This patient was very ill on admission with extensive ulceration of the palate and fauces, swinging temperature, and great dysphagia. A maculo-squamous eruption of the body raised the question of syphilis, and she was transferred to the venereal ward in Motherwell Hospital. After observation, the diagnosis of syphilis was excluded, but a course of salvarsan greatly improved the local and general condition.

SCROFULODERMA (1 case).—An old-standing case affecting the skin of the thigh was dismissed much improved, but not cured, after 143 days' residence. Arrangements were made to continue artificial light treatment at one of the outdoor dispensaries.

KERATITIS (2 cases).—The local lesion was greatly improved by treatment in both instances, and the patients were dismissed with the disease quiescent.

MULTIPLE LESIONS (3 cases).—M.23.—Both testicles had been removed on account of tuberculous epididymitis. Admitted with scrotal sinus and perineal abscess. Prostate, bladder, and kidney affected. Developed urinary fistulæ in scrotum and perinæum, I.S.Q. on dismissal.

F.29.—Old lesions of both elbows; tuberculosis of kidney, with large abscess; enteritis; I.S.Q. on dismissal.

F.27.—Old lesions of knee, glands, and eye; eight months' pregnant. Transferred to Bellshill Hospital for confinement.

TUBERCULIN REACTIONS.—In 26 instances the tuberculin tests were applied to these cases of established tuberculosis disease, and in all but three the results were positive. The ages of the positive cases are classified in these age groups:—1-2 years, 2; 2-3, years, 2; 3-5 years, 3; 5-10 years, 9; 10-15 years, 6; over 15 years, 1.

Of the 3 negative cases, 1 was a child dying from abdominal tuberculosis; 1 a case of well-established *tabes mesenterica*; and 1 a case of active keratitis.

Tuberculised Children.

(23 CASES.)

Where children are stated in this report to have been suffering from abdominal tuberculosis, pulmonary tuberculosis, &c., the diagnosis was definitely established and discernible by ordinary clinical methods. The classification "tuberculised" has been reserved for those who gave a positive tuberculin reaction, but did not present localising signs of diagnostic significance. Those children were admitted with a history of poor general health, either alone or combined with respiratory or abdominal symptoms. Some of them were debilitated and had symptoms suggestive of tuberculosis; others gave one the impression that the positive tuberculin reaction was not indicative of the cause of their illnesses. In many cases it was undoubtedly only a coincidence, but, in the meantime, all have been classified as tuberculised. Five adults have been included in this general group—3 were notified as suffering from pulmonary tuberculosis, 1 from abdominal tuberculosis, and 1 from tuberculous disease of the tibia. In none of these could the diagnosis be confirmed, but the patients had some symptoms which made it desirable that they should remain under the observation of the Tuberculosis Officers.

Seven of the patients had histories of *general symptoms alone*, and of these 1 was a debilitated contact, 1 had X-ray evidence of hilus disease, 3 suffered from subnutrition and general debility, and 2 were apparently quite well.

There were 9 cases in which *cough* was the chief localising symptom. One had tonsils and adenoids, 1 asthma, 1 bronchitis, 1 bronchiectasis, 1 arrested hilus disease, 2 chronic interstitial pneumonia, 1 pleuro-pulmonary fibrosis, 1 debility.

Six patients had a record of *abdominal trouble*—recurrent pain, diarrhœa or distension—and of these, 1 had no apparent disease, 1 was a debilitated contact, 1 had doubtful abdominal signs, 1 had arrested hilus disease, 1 was a case of infantilism, and 1 was debilitated.

A girl, aged 16, had a history of chronic osteomyelitis—probably pyogenic in origin. There was a sinus on admission, which was healed on discharge.

TUBERCULIN REACTIONS.—All of these patients gave positive tuberculin reactions, and belonged to the following age groups:—5-10 years, 11; 10-15 years, 7; over 15 years, 5.

Non-Tuberculous Diseases.

(41 CASES.)

In 41 cases—that is 27·7 per cent. of these under review—the diagnosis of tuberculosis was altered as follows:—

ADULTS (15).—Chronic nasopharyngitis, 2 (tonsils and adenoids, 1; deviation of the nasal septum, 1); chronic bronchitis, 1; asthma, 2; pulmonary fibrosis, 3; pulmonary fibrosis, dental sepsis, chronic gastritis, 1; dry pleurisy, 1, adhesive peritonitis, following perforation, 1; pyogenic abscess, 1; debility, 1; no apparent disease, 2.

CHILDREN (26).—Chronic nasopharyngitis, 1; bronchitis, 2; pulmonary fibrosis, 2; asthma, 1; whooping-cough, 1; rheumatic carditis, 1; spastic hemiplegia, 1; recurrent diarrhœa, 3; periostitis, 1; rickets, 2; malnutrition and debility, 9; no apparent disease, 2. The altered diagnosis in the case of these children was supported by repeated negative reactions to tuberculin applied to each child by the percutaneous, cutaneous, and sub-cutaneous methods. The ages of the children were:—0-1 year, 1; 1-2 years, 2; 2-3 years, 6; 3-5 years, 5; 5-10 years, 8; 10-15 years, 4.

SPECIAL EXAMINATIONS AND TREATMENT.

DENTAL TREATMENT.—The visiting dentist made 3 visits during the year, and treated 40 patients, the total number of extractions being 99.

EAR, NOSE, AND THROAT SPECIALIST.—Six cases were referred to the consulting laryngologist, and the following conditions were diagnosed:—Chronic non-tuberculous laryngitis, 1; deviation of the septum, 2; tonsils and adenoids, 1; chronic otitis media, 1; asthma, 1. The 2 cases of septal deviation received operative treatment.

X-RAY EXAMINATION.—Eighty patients were X-rayed at the County Hospital, Motherwell, the radiographs being forwarded to the Sanatorium and read in conjunction with the clinical picture.

ARTIFICIAL LIGHT TREATMENT.—Treatment with the atmospheric mercury vapour lamp was continued throughout the year. 37 patients were dealt with, and the general results are classified in the following table—similar to the one contained in last year's report—where “very much improved” means abnormal improvement ascribable to the use of artificial light, and “improved” indicates a degree of betterment likely to have occurred in the Sanatorium without the use of artificial light:—

Disease.		Very much Improved.	Improved.	Worse.
Pulmonary Tuberculosis, ...	...	1	—	1
Abdominal Tuberculosis, ...	...	—	7	3
Glandular Tuberculosis, ...	...	3	6	—
Tuberculised—				
With General Symptoms, ...	...	—	2	—
With Abdominal Symptoms, ...	...	—	1	—
With Hilus Changes, ...	...	—	1	—
With Asthma, ...	...	—	1	—
Tuberculous Dactylitis, ...	...	1	—	—
Tuberculous Spinal Caries, ...	...	—	—	1
Tuberculosis of Skin, ...	...	—	1	—
Tuberculous Keratitis, ...	...	—	1	—
Periostitis, ...	...	—	1	—
Rickets, ...	...	—	1	—
Diarrhœa, ...	...	—	1	—
Debility (Hygienic and Dietetic), ...	...	—	4	—

Although the experience is again a limited one and the assessment of relative improvement a matter of personal opinion, the following remarks are offered:—

A girl of 12, with extensive infiltration of the skin following rupture of a tuberculous gland, was treated unsuccessfully by means

of artificial light as an out-patient at one of the Tuberculosis Dispensaries. With the addition of sanatorium treatment, the disease was rapidly cured.

A man of 55, with early disease of the spine, was definitely worse after 50 exposures to artificial light. He had the advantage of ordinary sanatorium measures as well, but absolutely refused to remain at rest.

These two cases remind us that good results will be obtained only by using a combination of all appropriate methods of treatment. No single line is likely to be successful, and the art of cure will be practised by those using a discriminative combination of different measures for different cases.

One case of pulmonary tuberculosis with moderately advanced sub-active disease showed definite improvement in general health after exposure of the face, arms, and legs to artificial light. The pulmonary condition remained unchanged.

Three cases of glandular tuberculosis and one with disease of the finger were cured with abnormal rapidity.

In certain cases of abdominal tuberculosis the use of artificial light was a dangerous experiment, and appeared to light up a quiescent or sub-active lesion.

For the improvement of general health—weight, colour, appetite, vigour—the addition of artificial light did not give more rapid or better results than general sanatorium measures alone. The extent and rapidity of increase in weight is mainly dependent on the social and economic conditions of the patients prior to admission.

OUTBREAK OF DIPHTHERIA.—A girl who had been in the Sanatorium for six weeks contracted diphtheria in the month of June, and was transferred to Motherwell Hospital. Two secondary cases occurred and were dealt with similarly. All made good recoveries. The probable source of infection was by contact with visitors, as no carrier was discovered in the ward. On the occurrence of the third case, the remaining children were Schick tested, and the reactors received 500 units of anti-diphtheritic serum as a prophylactic.

ADMINISTRATION.

BUILDINGS AND GROUNDS.—An annexe to the male ward, comprising two side-rooms with accommodation for 3 adult patients, was completed and occupied during the year.

As the result of a garden fête, held in the grounds in the month of June, over £100 was raised for a wireless installation. Individual earphones have been supplied to all adult patients, and loud speakers have been provided in the home and in the recreation hut.

The Works Department carried out external painting of the whole Institution, and also executed various minor repairs in a most satisfactory manner.

ACCOMMODATION.—The accommodation has been increased by the addition of 3 adult beds, and now consists of 40 adult or juvenile beds and 15 cots, which were allocated as follows :—Adult or juvenile males, 18; adult females, 13; female children or non-infectious adults, 9; infants up to 3 years, 15.

STAFF.—On being appointed Matron of St. Andrew's Home, Millport, Miss E. C. Stewart resigned her post after seven years' excellent service. Her place was taken by Miss H. More, Matron of Dalserf Hospital.

The *Medical Staff* of 2 is non-resident, and remains unchanged. The *Nursing Staff* comprises a matron, 2 general trained sisters, 4 staff nurses, and 4 probationers. *Domestic Staff*—1 cook, 3 laundry maids, and 7 maids. *Outdoor Staff*—1 engineer attendant (resident) and 2 assistant gardener-firemen (1 resident).

Hairmyres Colony.

REPORT BY THE PHYSICIAN-SUPERINTENDENT JAMES JOHNSTONE, M.B., CH.B., D.P.H.

FOR THE YEAR 1928.

PATIENTS TREATED.

The number of patients under treatment during the course of the year is shown in the following tabular statement:—

In Residence 1st January.	Admitted During Year.	Discharged During Year.	In Residence 31st December.
196	255	227	224

PATIENTS CLASSIFIED ACCORDING TO PLACE OF RESIDENCE.

(a) *Middle Ward.*

Blantyre,	17	New Monkland,	5
Bothwell,	51	Old Monkland,	17
Cambuslang,	19	Shotts,	19
Cambusnethan,	7	Stonehouse,	1
Dalserf,	10	Strathaven,	2
Hamilton,	6		
		Total,	154

(b) *Other Districts and Burghs in County.*

Lower Ward,	1	Hamilton,	16
Upper Ward,	2	Motherwell,	1
Airdrie,	5	Rutherglen,	6
		Total,	31

(c) *Outwith the County.*

Ayrshire,	3	Dunbartonshire,	7
Berwickshire,	2	Renfrewshire,	15
City of Glasgow,	14	Selkirkshire,	1
		Total,	42

NATURE OF DISEASE.

Of the 227 patients discharged during the year under consideration, 206 proved to be tuberculous, in 109 cases the disease assuming the pulmonary form, while in 97 it was non-pulmonary. The diseases

affecting 3 cases were as follows :—Mitral stenosis, 1 ; specific disease, 1 ; tumour of lung, 1. In the other 18 cases no tuberculous lesion was detected.

In the statistics which follow, only 206 patients—discharged during the year—who proved to be tuberculous, are referred to :—

SOCIAL CONDITIONS.

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 and over.	Total.
Men, - -	26	48	15	12	3	104
Women, - -	—	8	3	3	1	15
Boys, - -	10	18	11	1	1	41
Girls, - -	18	24	4	—	—	46
Totals, - -	54	98	33	16	5	206

OCCUPATIONS.

Artisans, - - - -	28	Fruit Farmer, - - -	1
Miners, - - - -	27	Gamekeeper, - - -	1
Labourers, - - - -	11	Hairdresser, - - -	1
Clerks, - - - -	4	Lamplighter, - - -	1
Salesmen, - - - -	4	Marine Engineer, - -	1
Motor Drivers, - - -	3	Nurse, - - - -	1
Mill Workers, - - -	3	Nursemaid, - - - -	1
Tram Conductors, - -	2	Regular Soldier, - -	1
Warehousemen, - - -	2	Rubber Worker, - - -	1
Brickmaker, - - - -	1	Shop Manager, - - -	1
Cashier, - - - -	1	Tram Driver, - - -	1
Chemical Worker, - -	1	Typist, - - - -	1
Draughtsman, - - -	1	Waiter, - - - -	1
Farm Worker, - - - -	1		

PULMONARY TUBERCULOSIS.

	ADMISSIONS.			DISCHARGES.			
	Direct.	By Transfer.	Total.	Direct.	By Transfer.	Death.	Total.
Men, - -	61	21	82	73	8	1	82
Women, - -	8	1	9	8	1	—	9
Boys, - -	13	1	14	13	1	—	14
Girls, - -	4	—	4	3	1	—	4
Totals,	86	23	109	97	11	1	109

REASONS FOR DISCHARGE.

	Stage I.	Stage II.	Stage III.	Totals.
Period of Treatment Completed, - -	26	16	9	51
Against Medical Advice, - - -	21	6	5	32
Domestic and Financial, - - -	4	5	3	12
Misconduct, - - - - -	1	1	—	2
Contagious and Infectious Disease, -	1	1	—	2
Transferred to other Institutions, -	1	6	2	9
Died, - - - - -	—	—	1	1
Totals, - -	54	35	20	109

It is pleasing to note a reduction in the number of patients compared with last year discharged "against medical advice." It is hoped that this is an indication that the patient is realising the benefits of more prolonged treatment. There is also a gratifying reduction in the number of patients discharged for breach of regulations and misconduct.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups
Under 5, - -	—	—	—	Pre-School Age.
„ 10, - -	2	2	4	School Age.
„ 15, - -	13	2	15	
„ 20, - -	15	3	18	Adolescence.
„ 25, - -	15	3	18	
„ 30, - -	10	3	13	Early Maturity.
„ 35, - -	9	—	9	
„ 40, - -	10	—	10	
„ 45, - -	7	—	7	
„ 50, - -	12	—	12	Late Maturity.
„ 55, - -	3	—	3	
„ 70, - -	—	—	—	Post Maturity.
Totals, - -	96	13	109	

DURATION OF ILLNESS.

	Months.			Years.		
	1-3	3-6	6-12	1-2	2-4	Over 4
Duration, -	1-3	3-6	6-12	1-2	2-4	Over 4
Cases, -	3	6	11	16	24	49

45 per cent. of the cases gave a history of over four years' illness. This is a slight reduction on the previous year's figures, but it is still unsatisfactory as regards early treatment. No disease is more curable in its early stages than tuberculosis.

INITIAL MANIFESTATIONS OF ILLNESS.

Cough, - - - -	39	Gastritis, - - - -	3
Pleurisy, - - - -	30	Debility, - - - -	2
Influenza, - - - -	9	Osseous Tuberculosis, - -	2
Pneumonia, - - - -	8	Dyspnœa, - - - -	1
Adenitis, - - - -	5	Following Gassing, - -	1
Hæmoptysis, - - - -	4	Loss of Weight, - - - -	1
Lassitude, - - - -	4		

RESULTS OF TREATMENT.

The classification adopted is that of Turban-Gerhardt.

Stage of Disease.	Number of Patients.	T.B. Present.	Quiescent.	Improved.	No Change.	Worse.	Died.
I, - - -	54	9	27	11	15	1	—
II, - - -	35	14	14	6	11	4	—
III, - - -	20	6	6	7	4	2	1
Totals, - -	109	29	47	24	30	7	1

This is one of the most interesting and valuable tables in the report. An analysis of the figures shows that 50 per cent. of the cases in Stage I, *i.e.*, early cases of disease, were discharged with the disease "quiescent," in other words, showed no evidence of active disease on leaving the Colony. This indicates the value of institutional treatment, and is a sufficient answer to those members of the public—fortunately a diminishing number—who consider pulmonary tuberculosis a fatal disease. It is pleasing to note an increase in the number of cases admitted in the early stage of the disease. A colony is not an institution for the advanced type, and it would be impossible to develop the scheme with cases showing evidence of marked systemic disturbance.

COMPLICATIONS.—The undernoted table shows complications present in the different stages of the disease.

	Stage I.	Stage II.	Stage III.	Totals.
Acne Vulgaris, - - - -	1	—	—	1
Cardiac Enlargement, - - -	—	1	—	1
Eczema, - - - -	1	—	—	1
Laryngitis, - - - -	1	1	—	2
Leucoderma, - - - -	—	—	1	1
Otorrhœa, - - - -	1	—	—	1
Perforated Duodenal Ulcer, - -	—	1	—	1
Pyorrhœa Alveolaris, - - -	—	1	—	1
Totals, - - - -	4	4	1	9

DURATION OF RESIDENCE.						Average duration of stay in days.
	Under 4 weeks.	4 and under 13 weeks.	13 and under 26 weeks.	26 and under 52 weeks.	52 weeks and over.	
Stage I, . .	10	6	10	10	18	283
Stage II, . .	4	5	2	5	19	445
Stage III, . .	1	6	3	4	6	243
Totals, . .	15	17	15	19	43	

DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, . .	349	2,863	2
Women, . .	197	512	5
Boys, . .	259	879	10
Girls, . .	428	628	288

FAMILY HISTORY.

	Number of Cases Discharged.	Positive History.			Percentage.
		Stage I.	Stage II.	Stage III.	
Men,	82	9	6	1	20
Women,	9	1	—	—	11
Boys,	14	4	—	—	29
Girls,	4	—	1	—	25
	109	14	7	1	20

The figures shown in this table are rather unsatisfactory, the probable reason being that it is very difficult to obtain accurate information. Very few patients will directly admit a positive family history of tuberculosis. This is particularly noticeable when interviewing the mothers of tuberculous children.

NON-PULMONARY TUBERCULOSIS.

97 patients received treatment for the non-pulmonary form of tuberculosis.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5,	—	—	—	Pre-School Age.
„ 10,	14	26	40	School Age.
„ 15,	13	16	29	
„ 20,	5	2	7	Adolescence.
„ 25,	6	2	8	
„ 30,	3	2	5	Early Maturity.
„ 35,	5	—	5	
„ 40,	1	—	1	
„ 45,	—	—	—	Late Maturity.
„ 50,	1	—	1	
„ 55,	—	—	—	Post Maturity.
„ 70,	—	—	1	
Totals,	49	48	97	

The majority of the cases, 71 per cent., were between the ages of 5 and 15.

The following table shows results of treatment according to the nature of the disease:—

	Quiescent.	Imp.	No Change.	Worse	Total.
Peripheral Glands, - - -	25	15	4	—	44
Tracheo-bronchial Glands, - -	8	6	1	—	15
Abdomen, - - - - -	7	4	—	—	11
Skin, - - - - -	6	3	1	—	10
Bone, - - - - -	2	1	4	—	7
Spine, - - - - -	2	—	1	—	3
Other Organs, - - - -	1	5	1	—	7
Totals, - - - - -	51	34	12	—	97

27 per cent. of the peripheral gland cases had discharging sinuses before or during treatment.

The conclusion one may draw from this table is that the non-pulmonary form of tuberculosis is very amenable to treatment. Over 50 per cent. were discharged “quiescent,” and not a single case was worse. Examining the type of lesion, one noticed a marked increase, from 9 to 27 per cent., of peripheral gland cases with discharging sinuses. This was probably due to our well-equipped Light Treatment Department and to the increased recognition of the great value of that treatment in this type of lesion.

DURATION OF RESIDENCE.

	Under 4 Weeks.	4 Weeks and under 13.	13 Weeks and under 26.	26 Weeks and under 52.	52 Weeks and over.	Average duration of stay in days.
Peripheral Glands, - - -	3	8	7	8	18	287
Tracheo-bronchial Glands, -	1	2	—	1	11	359
Abdomen, - - - - -	—	2	4	1	4	239
Skin, - - - - -	1	—	3	2	4	364
Bone, - - - - -	1	1	1	—	4	315
Spine, - - - - -	—	—	—	1	2	382
Other Organs, - - - - -	—	4	2	—	1	193
TOTALS, - - - - -	6	17	17	13	44	

DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, - - - - -	330	1,279	3
Women, - - - - -	195	366	8
Boys, - - - - -	297	667	5
Girls, - - - - -	299	1,167	3

Compared with the previous year, there is a drop of over 50 per cent. in the number of cases that were in residence under four weeks. The statement made in last year's report regarding the duration of residence of children must again be emphasised. This year the average duration was over nine months, a step in the right direction of prolonged treatment for permanent results.

FAMILY HISTORY.

	Number of Cases Discharged.	Positive.	Percentage.
Men, - - - -	22	1	5
Women, - - - -	6	1	17
Boys, - - - -	27	7	26
Girls, - - - -	42	11	26
Totals, -	97	20	21

The same remarks apply to the family history in the non-pulmonary type as in the pulmonary, although in the former the incidence of bovine infection would have to be carefully considered.

PENSIONERS.

Included in the patients discharged during the year under consideration were 16 pensioners, a decrease of 4 on the previous year. Of that number, 13 were affected with the pulmonary type of the disease, 7 being in Stage I, 5 in Stage II, and 1 in Stage III. 1 pensioner suffered from tuberculosis of glands, and in the remaining 2 cases no definite tuberculous lesion could be detected.

This figure naturally showed a steady decrease, and in the near future will probably be a vanishing quantity, one explanation being the termination of the period within which claims can be sent to the Ministry of Pensions.

GRADUATED LABOUR.

Of the 124 adult males discharged during the period under review, 99 registered for training. 18 were physically unfit for systematic training, but were engaged in occupational therapy, and 7 were unable to work without prejudice to their condition.

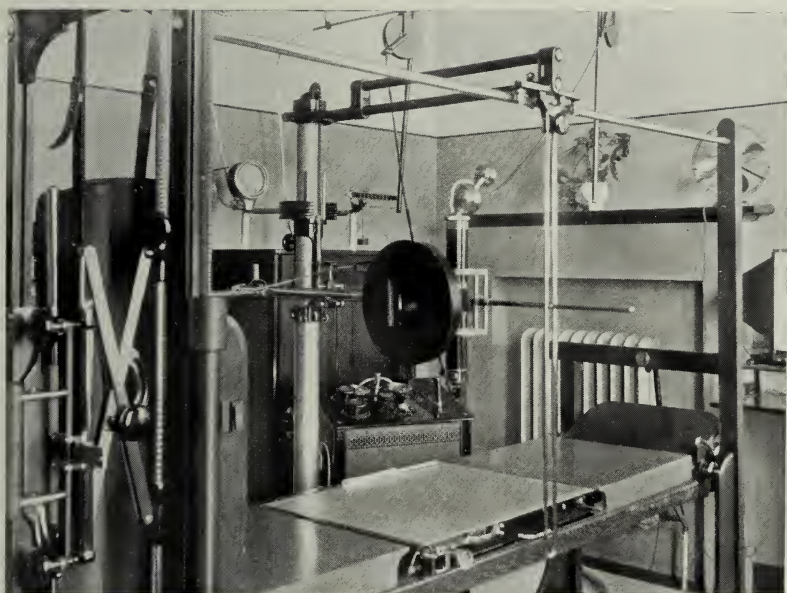
NECESSITOUS CASES.

During the year, 115 necessitous cases—an increase of 40 on last year—were supplied with clothing and boots as follows:—

	Cases.	Value.
Middle Ward District, - - - -	83	£256 7 0
Other Authorities, - - - -	32	115 8 0

The necessitous circumstances of all cases were verified by the respective Medical Officers of Health.

284A



X-Ray Apparatus.

WASSERMANN TEST.

A specimen of blood for the Wassermann test was taken from all adult patients on admission, with the undernoted results :—

Positive, 1; Strongly positive, 8—Total, 9.

This was equal to 6·4 per cent. of the adult admissions. One might consider this normal for a mixed population. The figure for the previous year was 9 per cent.

DENTAL TREATMENT.

During the year 114 adults and 110 children received treatment as follows:—Extractions, 462; fillings, 57; scalings, 28. 1 patient was supplied with artificial dentures and 2 patients had their dentures repaired. Our Dental Surgeon again reported a marked improvement in the dental condition of the patients, pyorrhœa alveolaris not being a marked feature, and a smaller number of extractions was necessary. The figures for conservative treatment (fillings and scalings) remained much the same as last year. In the case of the patient who required artificial dentures, half the cost was borne by his Health Insurance Society. 7 patients, at their own expense, were supplied with artificial dentures.

X-RAYS.

Our new Monovalve X-ray unit was installed in July, and has proved a very satisfactory piece of apparatus, being silent in operation and having no moving parts. A water-cooled Metalix tube was used, and it marks a great improvement in X-ray technique, a feature being its protective covering affording ample protection to the operator. A Potter Bucky Diaphragm of the new flat type was also purchased, and we are now able to take proper bone photographs. With this complete equipment, we have been able to maintain a good standard of radioscopy and radiography.

392 patients were X-rayed during the year, 19 of these being out-patients. The number of chest examinations was 338. 295 films were taken, 61 being stereoscopic. Other parts examined were as follows:—Spine, 5; knee, 5; hand, 5; pelvis, 4; wrist, 3; head, 2; hip, 2; femur, 2; foot, 2; elbow, 2; fingers, 2; arm, 1. Rectal barium injections were given in 19 suspected cases of abdominal tuberculosis. This is a feature which is worthy of further development, defective filling of the caecum being a characteristic sign in positive cases.

Towards the end of the year, with a view to clearing up the diagnosis in doubtful pulmonary cases, a few Lipiodol injections were given, and it is hoped to develop this more extensively in succeeding years. One case of an open empyema received a Lipiodol injection through the sinus, and the area of the diseased cavity was very clearly demonstrated under X-rays. In lung cases, the technique recommended by Chandler and Wood was used, *i.e.*, through the crico-thyroid membrane using the special trocar and cannula.

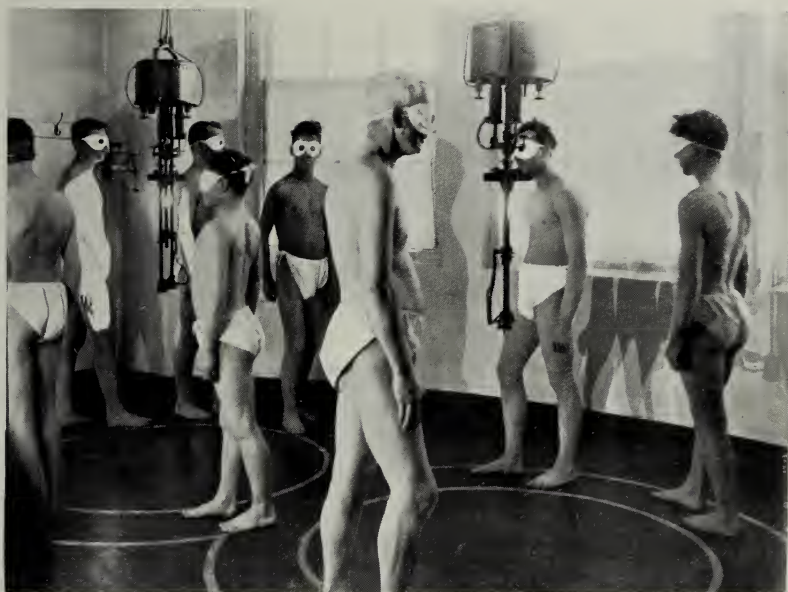
ACTINOTHERAPY.

The ultra-violet rays, both natural and artificial, were again extensively used for the treatment of the non-pulmonary forms of tuberculosis.

HELIOOTHERAPY.—This summer the northern portion of the British Isles did not receive its due allowance of sunshine, with the result that heliotherapy was rather limited in its application. Treatment was only possible on 44 days. It commenced on 22nd April and terminated on 15th September. However, the results of the limited application were very good, and all the patients reacted well. The dosage did not require to be carefully graduated owing to the absence of intense sunlight, and one quickly reached the stage of full exposure. This is still the best and cheapest method of obtaining the ultra-violet rays.

ARTIFICIAL LIGHT.—In June, the Light Department had two long-flame carbon arc lamps (Sunrae) and one Uviator air-cooled mercury vapour lamp (K.B.B.) added to its equipment. This department, in addition to the lamps just mentioned, also has four 20-ampere short-flame carbon arc lamps arranged in series and one quartz mercury vapour lamp, atmospheric type (K.B.B.). We are now able to treat all forms of tuberculous disease. In the 20-ampere carbon arc lamps, we continued to use the combination of Polar white-flame positive carbons and solid plain negative carbons. A further year's experience with this combination fully justifies its use, and it has given excellent results, exposure of the patients being graduated in the usual way and reaching a maximum of two hours per day.

Close observations were made on the relative merits of the long and short-flame carbon arcs. To make the contrast more marked, the strongest variety of carbons was used in the long-flame lamps giving



Long Flame Carbon Arcs (Sunrae).



Local Treatment with Air Cooled Quartz Mercury Vapour Lamp
for Enlarged Tuberculous Glands.

an erythema dose in 3 minutes at 30 inches. With these lamps, the patients were treated walking round in a figure of 8 at a distance of 30 inches. In the case of the short-flame lamps, the patients were seated. A short tabular statement explains the difference:—

LONG FLAME LAMPS.

Short exposures requiring more careful supervision but enabling a larger number of patients to be treated.

Seemed to have a more marked tonic effect where there was no gross lesion. Would be of great benefit in the treatment of debilitated children.

SHORT FLAME LAMPS.

Long exposures not requiring the same careful supervision, and with less risk of over-exposure.

Seemed to have a more marked effect on definite tuberculous lesions, *e.g.*, bone, glands with discharging sinuses.

It is rather difficult to explain this difference. These observations have been made entirely from practical experience. If one attempted to theorise, might it not be that a more continuous application of the less intense rays, as used in the short-flame lamps, has the more lasting and permanent effect, although, with the long-flame lamps, one feels more exhilarated and benefited for the time being. However, it is a subject which is worthy of further research, and one cannot be too dogmatic at the present stage.

The Uviator mercury vapour air-cooled lamp was found to be of great value in the treatment of local tuberculous lesions, *e.g.*, lupus. It is interesting to record that it was found to be very useful in the treatment of those enlarged indurated glands which are so resistant to general light treatment. One or two results were rather striking, glands the size of pigeons' eggs being made to disappear entirely. The technique adopted was 1-2 minutes' exposure with a large quartz applicator pressed against the gland. It should be emphasised that all local treatment in tuberculous conditions should be supplementary to general light baths. No patient received local applications only. Tuberculosis is a general and not a local disease.

This lamp was also found to be very useful in the diagnosis of ringworm, an applicator with a Wood's glass filter being fitted to the front of the lamp, and one obtained the usual fluorescent appearance of the infected hairs in the beam of filtered light.

Since the installation of the new lamps, the average number of treatments given per month was 798. The total number of treatments given by the different lamps was as follows:—Short-flame arc, 4,562; long-flame arc, 1,490; mercury vapour, 1,805; Uviator, 373.

Lesion.	Patient. Name.	Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Glands.	E. C.	15	M.	2 years.	2 months.	M.V.	Improved.
	K. C.	9	F.	6 "	10 "	S.F.	Cured.
	J. W.	31	M.	6 months.	3 weeks.	L.F.	Improved.
	M. O'D.	13	F.	3½ years.	7½ months.	M.V.	Cured.
	M. C.	14	F.	8½ "	7½ "	M.V.	Cured.
Glands (Discharging Sinus).	J. P.	21	F.	21 years.	2 months.	S.F.	Cured.
	M. M'N.	18	F.	9 "	6 "	S.F.	Cured.
	B. C.	29	F.	14 "	6½ "	S.F.	Cured.
	J. W.	6	M.	2 "	13 "	M.V.	Cured.
	J. M.	11	M.	2 months.	4½ "	M.V.	Cured.
	J. D.	9	M.	2 "	2 "	S.F.	Cured.
	J. S.	23	M.	10 years.	8 "	M.V.	Cured.
	D. F.	7	F.	2 months.	4 "	L.F.	Cured.
	E. S.	6	M.	3 years.	16 "	M.V.	Cured.
	J. R.	13	F.	7½ "	3½ "	S.F.	Improved.
	J. S.	6	M.	2 "	7 "	M.V.	Cured.
	W. W.	10	M.	4 "	4½ "	S.F.	Cured.
	P. S.	20	M.	16 "	4 "	L.F.	Improved.
	P. M'G.	33	M.	29 years.	4 months.	M.V.	Improved.
	A. M'S.	12	F.	5 "	2 years.	S.F.	Cured.
Fibroid Lupus.	E. S.	18	F.	12 "	9½ months.	M.V.	Cured.
	M. C.	6	F.	4½ "	10½ "	S.F.	Cured.
	M. H.	19	M.	13 "	4½ "	S.F.	Improved.
	S. K.	22	F.	14 years.	8½ months.	S.F.	Cured.
Catarrhal Lupus.	E. P.	12	F.	6 "	6 "	S.F.	Cured.
	J. S.	15	M.	12 "	14 "	U.V.	Cured.
						M.V.	Cured.
Erythematosis.	J. S.	57	M.	1½ years.	4 months.	S.F.	Cured.
Scrofuloderma.	W. D.	21	M.	9 months.	4 months.	S.F.	Cured.
Bone.	J. L.	11	M.	9 years.	8 months.	S.F.	I.S.Q.
	W. O'C.	18	M.	16 "	11 "	M.V.	Improved.
	T. H.	17	M.	8 months.	9 "	S.F.	Cured.
	T. M'M.	6	M.	2 years.	1¾ years.	M.V.	I.S.Q.
						U.V.	Cured.
	J. K.	14	M.	4½ years.	8 months.	S.F.	Cured.
	J. B.	19	M.	3 "	3½ "	M.V.	Cured.
	J. B.	6	F.	1 month.	1½ "	L.F.	Improved.
Abdomen.	N. M'G.	12	F.	3 months.	10 months.	S.F.	Cured.
	D. S.	21	M.	6 "	3 "	S.F.	Improved.
	M. W.	6	F.	6 "	6½ "	S.F.	Cured.
	W. G.	10	M.	9 "	2½ "	S.F.	Cured.
Ilium and Groin. D.S.	J. B.	29	M.	4 years.	16 months.	U.V.	Improved.
						S.F.	
						M.V.	

* S.F.—Short Flame.
L.F.—Long Flame

M.V.—Mercury Vapour
U.V.—Uviator

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	Lamp.	Result.
Breast. D.S.	B. R.	55	F.	3 years.	2 months.	M.V.	Cured.
Gas Burn.	D. M'C.	46	M.	8 years.	1 month.	M.V.	I.S.Q.
Empyema.	{ A. D.	15	M.	5 years.	1 year.	S.F.	I.S.Q.
	{ J. M'L.	49	M.	3 „	2 months.	L.F.	I.S.Q.
Alopecia Areata.	R. G.	5½	M.	3 months.	1½ months.	M.V.	Cured.
Deafness and Tinnitus.	L. L.	43	M.	38 years.	3 months.	U.V.	I.S.Q.

At the end of the year, 17 males and 8 females were still undergoing treatment.

OUT-PATIENTS.—The following table shows details of out-patients treated during the year. At the end of the year, 6 males and 2 females were still undergoing treatment:—

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	Lamp.	Result.
Glands.	{ J. L.	9	M.	3 months.	5 months.	M.V.	Cured.
	{ J. M.	20	F.	1 year.	3½ months.	M.V.	Cured.
	{ I. W.	12	M.	3 months.	4 months.	M.V.	Improved.
Glands (Discharging Sinus).	{ R. B.	18	F.	4 years.	21 months.	M.V.	Improved.
	{ C. F.	6	F.	3 months.	6 months.	M.V.	Improved.
Bone.	A. W.	45	M.	1 year.	1 year.	M.V.	Cured.

Where two types are shown for one case, the short-flame carbon arc was used for general treatment and the mercury vapour for local.

Analysing the results, we find that 63 per cent. of the cases treated were discharged “cured,” a result which indicates beyond a doubt the great benefit to be derived from actinotherapy. It will be noticed that several of the cases had been affected for many years. If they had been treated earlier, there would have been a considerable financial saving to the Local Authority. Some people still imagine that this treatment is a stunt, but let us hope that a careful perusal of these results will alter the views of these doubters. The best results continued to be obtained in cases of glands with discharging sinuses, lupus, particularly the catarrhal type, and lesions of the abdomen. In conclusion, one would recommend for a Light Department treating tuberculous cases, both types of carbon arc lamps, long and short flame, a general mercury vapour lamp, and, in addition, a mercury vapour lamp with quartz applicators for local treatment.

RINGWORM.

This year there was a small outbreak of ringworm (20 cases). They were all treated with thallium acetate, and the results were satisfactory. Only one case, a boy who received the largest dose, complained of joint pains. A word of warning should be given regarding careful after-treatment. The children should be kept under observation during depilation, and care taken to see that all the diseased hairs are removed, either by adhesive plaster or otherwise. The simplicity of the treatment, compared with X-rays, is a point in its favour.

ARTIFICIAL PNEUMOTHORAX.

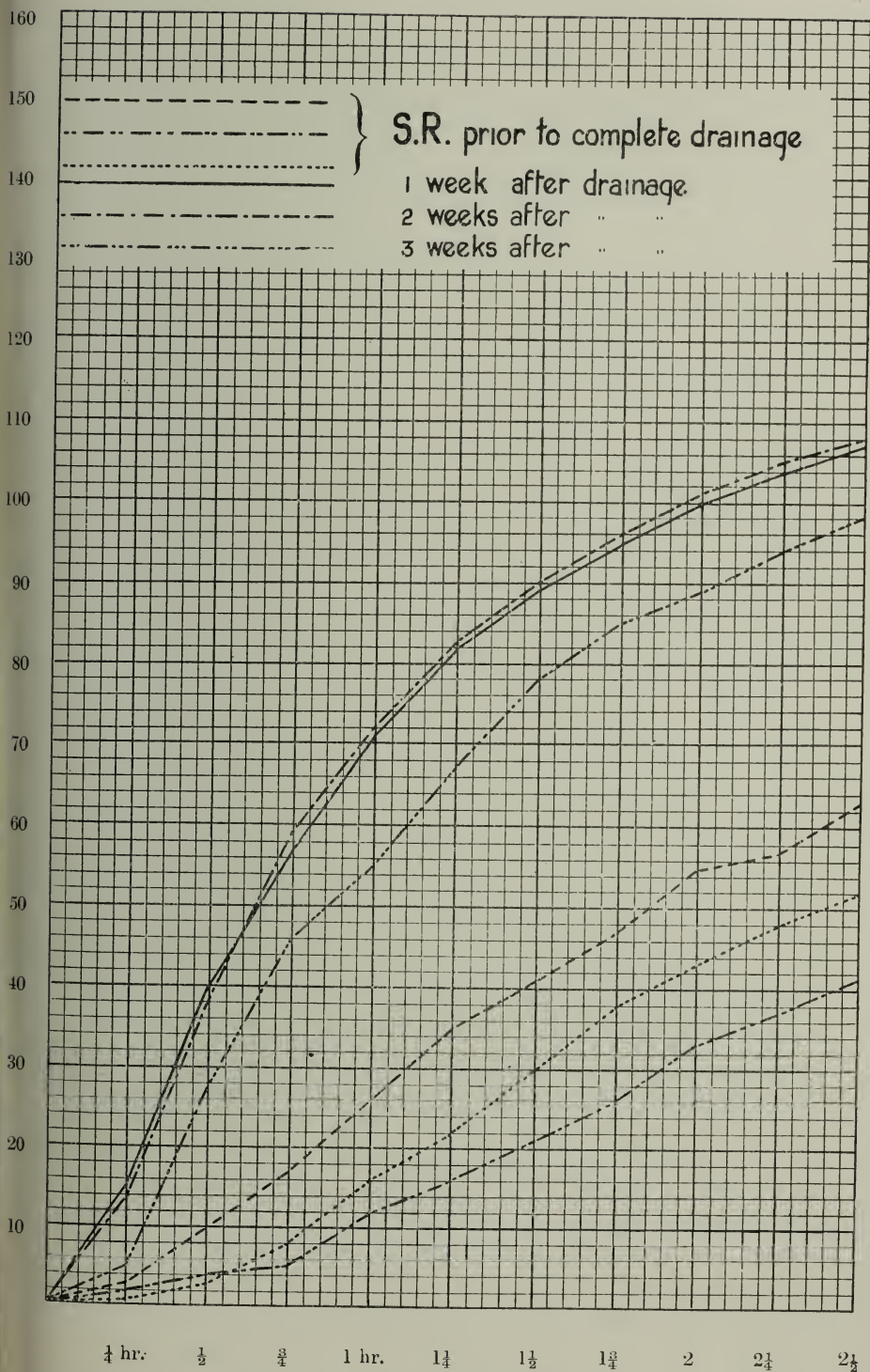
This operation was performed on a few selected cases during the year. The majority of patients admitted to the Colony do not require this treatment. The apparatus used was the Holmes-Wingfield pattern, and it continued to give satisfactory results. Two of the cases were out-patients who had received their initial injections at an institution outwith the County and were sent here for periodical refills. They both did well, and, in one of them, the lung was allowed to re-expand after being under compression for three years and four months. One case calls for special comment—an adult male admitted with chronic empyema of the left pleural cavity. The fluid, which was found to contain numerous tubercle bacilli, was aspirated on several occasions, but always reaccumulated. Under X-ray control, the fluid was completely evacuated and replaced with air. Refills were given at monthly intervals, the average amount being 600 c.c.s. The patient has kept very well, with great improvement in his general condition. There has been no marked reaccumulation of the fluid. By the end of the year, 3 primary injections and 27 refills had been given.

BLOOD SEDIMENTATION REACTION.

The following is a report by Dr. Finlayson, Assistant Physician, on the work done in connection with the blood sedimentation reaction :—

It is evident, from the various articles appearing in the journals of tuberculosis, that the sedimentation reaction is playing an important part in the treatment and prognosis of tuberculosis, and one is almost led to conclude that it should be adopted as part of the routine examination of all cases admitted to institutions for treatment of tubercle, whether pulmonary or non-pulmonary.

GRAPH I.



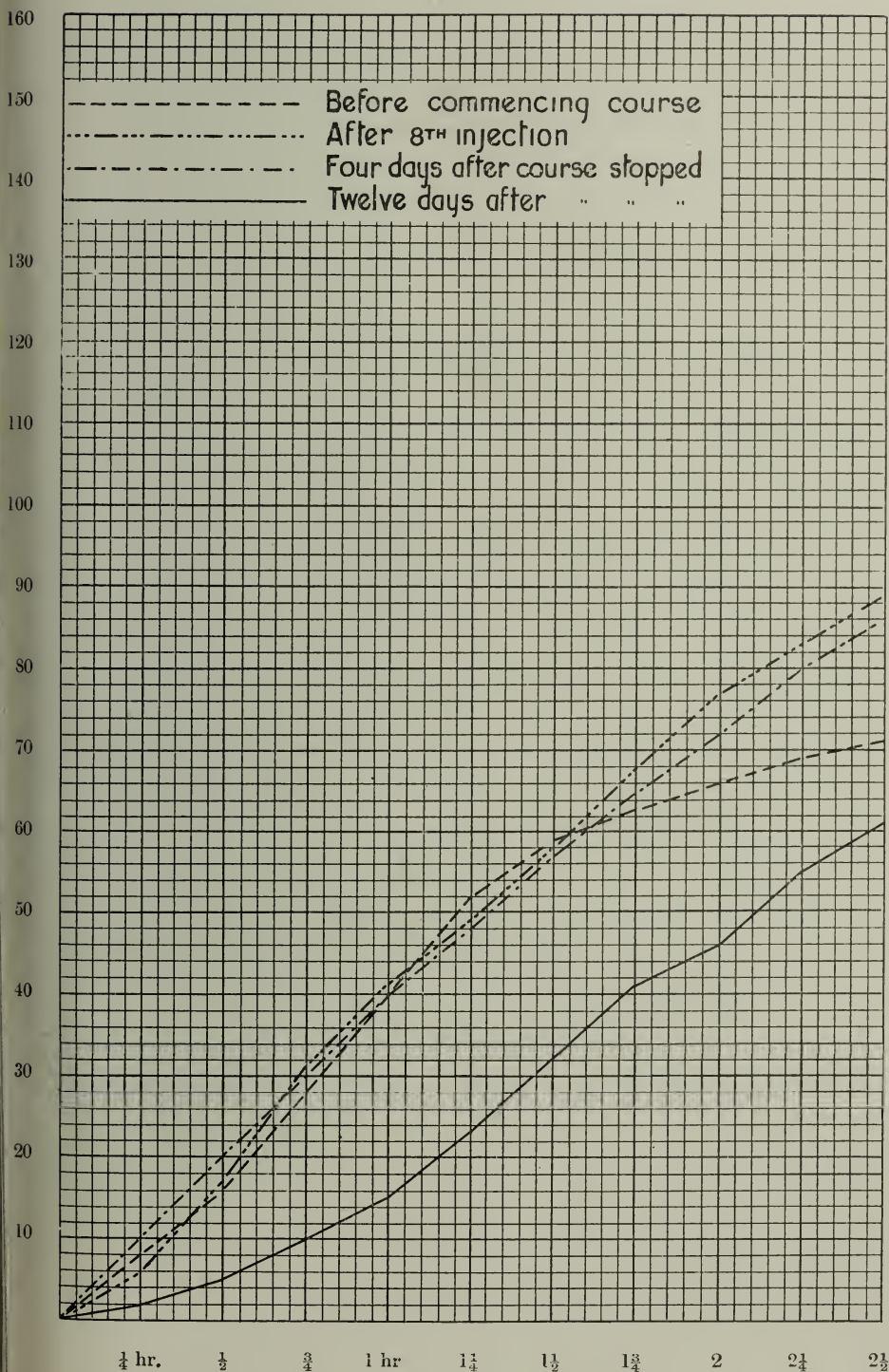
$\frac{1}{4}$ hr.— $2\frac{1}{2}$ hrs. at $\frac{1}{4}$ hourly intervals.

Although the sedimentation reaction has only recently appeared as a factor in prognosis in tuberculosis, there are instances as far back as Hippocrates where the sedimentation of blood has been observed in acute infections, but Westergren brought the sedimentation reaction to directly apply to cases of tuberculosis, and recently it has been widely adopted.

Westergren devised a means whereby accurate readings could be taken, and his apparatus is one of the most satisfactory, the technique being as follows:—Blood is taken from a convenient vein into a specially-manufactured syringe, which has a check on the piston rod. The syringe contains a 3.8 per cent. solution of sodium citrate, so that when the blood is drawn into the syringe it is in the proportion of 4 to 1 with the sodium citrate. The blood is then put into a special small tube, and from there, after thorough mixing, the blood is drawn up to the 200 mark on the pipette and placed in a special stand for the purpose, the reading being taken at one hour. This figure, we find, gives a fair indication of the rate of sedimentation of the erythrocytes, but recently we have been taking $\frac{1}{4}$ -hourly readings up to $2\frac{1}{2}$ hours, and making a graph of the resulting readings. From these graphs, we have noticed that the curve rises sharply until two hours and then flattens out. We have also observed readings up to 24 hours at hourly intervals from $2\frac{1}{2}$ hours, but we are not inclined to place any clinical significance upon these readings from the point of view of prognosis in tuberculosis.

We have here collected the results of 235 cases of tuberculosis, and, correlating them with the clinical stage of the pulmonary cases, we found some interesting facts. Referring to Table I, where we have 84 cases divided as 5 Stage I, 16 Stage II, and 63 Stage III, all cases in which the sputum was positive, we found the sedimentation reaction averaged respectively 4.2, 16, and 41.39. It is interesting to note here that in Stage I cases the highest and lowest readings were 2 and 11 respectively; Stage II, 4 and 38 respectively; and Stage III, 3 and 126 respectively, so that we conclude that the variation is according to the stage. Table II shows sputum negative cases, 94 in all, 42 Stage I, 46 Stage II, and 6 Stage III, the averages being 6.38, 13.37, and 15.38 respectively, not such a difference between the sedimentation reaction of each stage, and, of course, as one would expect, the average is much lower over all. We have included an interesting table in Table III, showing sputum negative Wassermann positive cases, but, as the total number is small, one cannot be too

GRAPH II.



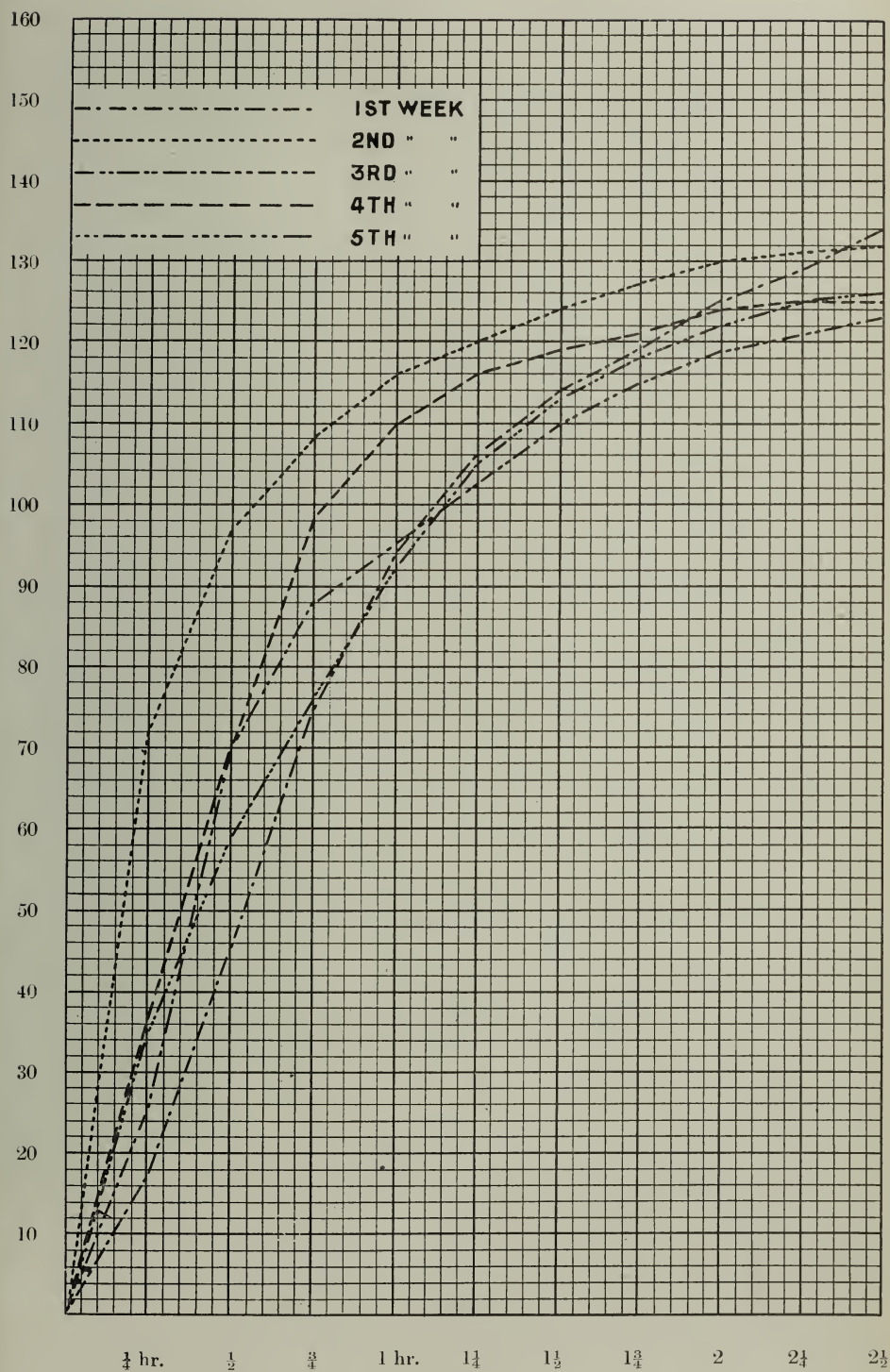
definite in drawing conclusions therefrom. Nevertheless, the table has this interest, in that in Stage I the average is 29; in Stage II, 15; and in Stage III, 10, showing that, although the case is clinically one of tuberculosis, the fact that the Wassermann is positive interferes with the prognostic value of the sedimentation reaction from the point of view of tuberculosis. We hope, however, at a later date to be able to give more information on this factor.

In the case of non-pulmonary tuberculosis, Table VI, we find that bone cases give a higher sedimentation reaction than others, leading one to conclude that the systemic disturbance is greatest in bone, and possibly the toxic elements interfere with the blood-forming activity of the bone. Skin cases are next, and so on down the list.

Unfortunately, we have not much opportunity for studying the sedimentation reaction in females, as we have not accommodation for a great number, consequently there are few admissions in the course of a year. In Table IV, we have a series of cases in which we have in sputum positive, Stage I, no cases; Stage II, 1 case, sedimentation reaction, 16; Stage III, 4 cases, with average sedimentation reaction, 83.75. It is interesting to note here that the average in Stage III sputum positive cases is practically double that of Stage III sputum positive male cases. In Table V sputum negative cases we have only 1 Stage I, sedimentation reaction, 26. Turning to non-pulmonary female cases, Table VII, we have 3 gland cases, with sedimentation reaction averaging 6; skin cases, 2; with sedimentation reaction averaging 5; and spine, 1 case, sedimentation reaction, 4. We are not inclined to bring much clinical significance to bear on the few cases which we have.

Reviewing pulmonary cases where the sedimentation reaction is taken from the point of view of estimating the progress of the treatment of the case, we have only recently adopted the weekly routine of taking sedimentation reaction, and we find that, in cases which are increasing in weight and showing a clinical improvement, the sedimentation reaction is decreasing, whereas in those cases where there is loss of weight and an apparent clinical retrogression, the sedimentation rate is higher. We hope in our next annual report to give more information on this point.

GRAPH III.



We have, as before stated, recently been making graphs of the sedimentation reaction for $2\frac{1}{2}$ hours and taking sedimentation reaction weekly, and, from the reading of the graphs, endeavouring to obtain some information as to the progress of treatment. Graph I is that of a case, J.M., who was admitted with an extensive effusion on the left side of his chest. This was drained and pneumothorax induced. He has been having monthly refills and repeated X-ray examinations. It was noticed that there was a small collection of fluid at the left costo-diaphragmatic angle at a recent X-ray examination, and this was found to be increasing. Under screening in X-ray, he was completely drained. The costo-diaphragmatic angle being absolutely clear, the chest was then filled. A week later, the sedimentation reaction was taken, and this was found to be higher than on previous occasions, which was not just quite what one would expect. We are inclined to think that the ratio of solids to fluids in the blood was upset in some way, thus giving a more rapid and higher sedimentation reaction. We might mention here that the bacteriological examination of the exudate withdrawn was T.B. + +.

Graph II is that of a Stage III case to which was given a course of calcium chloride, 10 c.c.s of a 10 per cent. solution intravenously, 12 injections in all. The graph is interesting in that the sedimentation reaction was taken after the eighth injection, and found to be increased instead of, as one might expect, decreased. It was again taken several days after the course had been completed. The graph will explain itself.

Graph III is that of a case of bone tuberculosis where there has been extensive sequestrum formation.

TABLE I.

Stage.	Number of Cases.	Average S.R.	Sputum.	Wassermann.
I.	5	4.2	Positive.	—
II.	16	16	Positive.	—
III.	63	41.39	Positive.	—

TABLE II.

Stage.	Number of Cases.	Average S.R.	Sputum.	Wassermann.
I.	42	6.38	Negative.	—
II.	46	13.37	Negative.	—
III.	6	15.38	Negative.	—

TABLE III.

Stage.	Number of Cases.	Average S. R.	Sputum.	Wassermann.
I.	2	29	Negative.	Positive.
II.	4	15	Negative.	Positive.
III.	1	10	Negative.	Positive.

TABLE IV.

FEMALE CASES.

Stage.	Number of Cases.	Average S. R.	Sputum.	Wassermann.
I.	—	—	—	—
II.	1	16	Positive.	—
III.	4	83.75	Positive.	—

TABLE V.

FEMALE CASES.

Stage.	Number of Cases.	Average S. R.	Sputum.	Wassermann.
I.	1	26	Negative.	—
II.	—	—	—	—
III.	—	—	—	—

TABLE VI.

NON-PULMONARY MALE CASES.

Lesion.	Number of Cases.	Average S. R.
Skin, - - - - -	2	30
Bone, - - - - -	8	61
Cervical Adenitis, - - - - -	15	23.6
Abdomen, - - - - -	7	29.43
Testicle, - - - - -	1	2
Fæcal Fistula (post-appendix), - - - - -	1	7
Kidney, - - - - -	4	10

TABLE VII.

NON-PULMONARY FEMALE CASES.

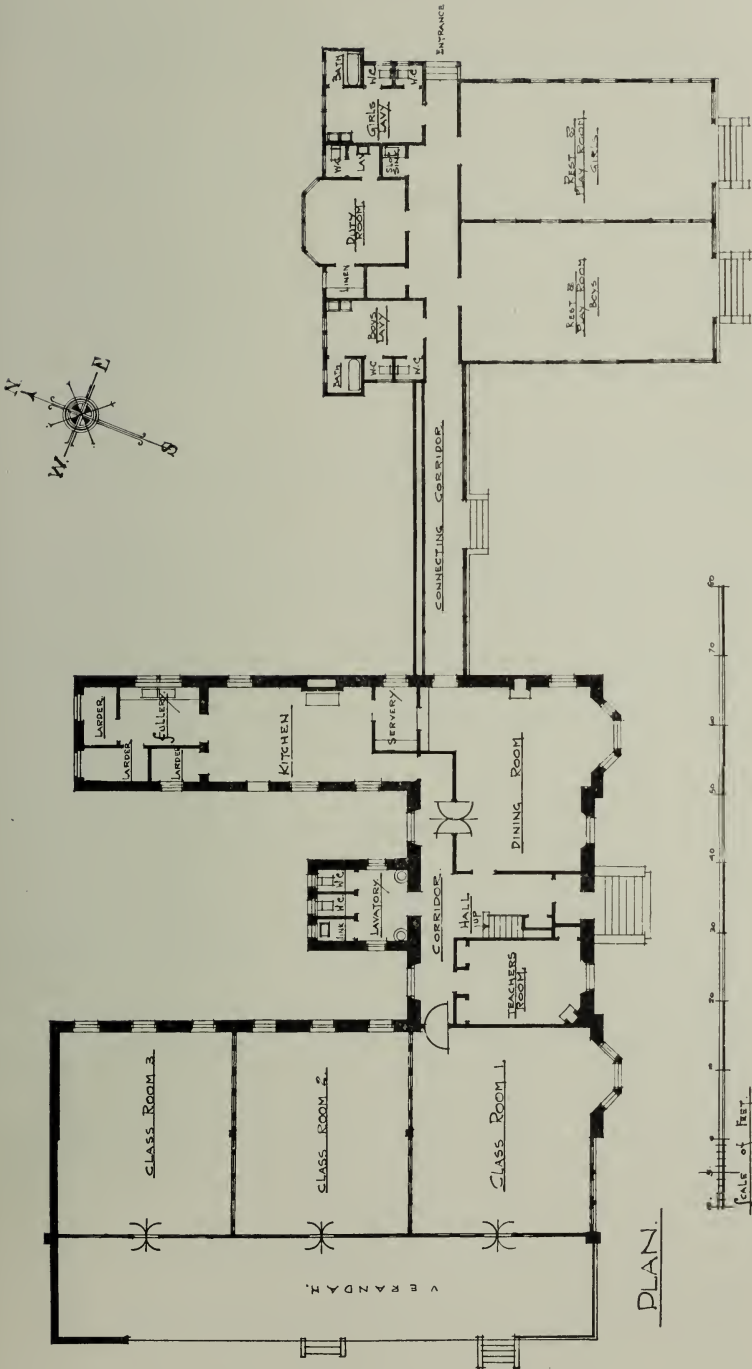
Lesion.	Number of Cases.	Average S. R.
Cervical Adenitis, - - - - -	3	6
Skin, - - - - -	2	5
Spine, - - - - -	1	4



School Buildings.



Open-Air School.



PLAN.

The recreation hall, old nurses' home, old school, farm cottages, and greenhouses were repaired and painted. Tar-macadam was laid round the new school and the main avenues were tar-sprayed.

The extension to the nurses' home, consisting of five bedrooms and a bathroom, was completed towards the end of the year, and has relieved the congestion in staff accommodation.

RECREATION.—The recreation hall was largely used for concerts, whist drives, and the weekly cinematographic entertainments during the winter months. The films this year were hired from Messrs. Ideal Films, Ltd., and they have been a very suitable type, mainly comedy.

The golf course, putting green, and croquet lawns were very popular during the summer months.

One would like to express our gratitude to all the kind friends who have so generously provided entertainments during the season.

RELIGIOUS SERVICES.—Every second Sunday afternoon a religious service was held in the recreation hall, and our thanks are due to the ten local clergymen who conducted those services.

METEOROLOGICAL REPORT.

I. RAINFALL.

Month.	Depth in Inches.	Month.	Depth in Inches.
January, - - -	10·25	July, - - -	2·95
February, - - -	5·50	August, - - -	3·50
March, - - -	3·8	September, - -	3·80
April, - - -	1·57	October, - - -	8·7
May, - - -	1·90	November, - - -	5·48
June, - - -	5·13	December, - - -	4·37
Total Rainfall for Year, -			<u>56·95</u>

This shows an increase of 6·68 inches on the previous year.

During the year there were 189 completely dry days, being 2 days more than last year.

II. WINDS.

North, - - - -	28	South, - - - -	37
North-East, - - -	40	South-West, - - -	69
East, - - - -	54	West, - - - -	93
South-East, - - -	14	North-West, - - -	31
	<u>136</u>		<u>230</u>

III. TEMPERATURE.

The highest, lowest, and mean shade temperature for each month follows :—

	Highest Reading.	Lowest Reading.	Mean.
January, - - -	48	16	32
February, - - -	52	25	38·5
March, - - -	55	15	35
April, - - -	70	25	47·5
May, - - -	72	27	49·5
June, - - -	78	26	52
July, - - -	70	36	53
August, - - -	80	36	58
September, - - -	70	26	48
October, - - -	64	26	45
November, - - -	52	25	38·5
December, - - -	48	21	34·5

The mean temperature for the year, therefore, works out at 44·3.

STAFF.

In November, Dr. John D. Finlayson was appointed assistant physician in place of Dr. Smith.

At the end of the year the Institution Staff, in addition to the Physician-Superintendent, Assistant Physician, and Matron, included the following :—

Sisters, - - - - -	6	Typist, - - - - -	1
Staff Nurses, - - - - -	3	Clerks, - - - - -	2
Nurses, - - - - -	16	Electric Power Station, -	5
Supervisor, - - - - -	1	Handyman, - - - - -	1
Maids, - - - - -	30	Porter, - - - - -	1
School Teachers, - - - - -	3	Attendant, - - - - -	1
			<hr/>
Total, - - - - -			70
			<hr/>

COLONY DEPARTMENTS.

The training conditions in all departments were similar to those of previous years, the patients being trained by experienced instructors. The working hours per day varied from two to six, according to the patient's physical condition.

GARDENS.

During the year 26 patients enrolled for training. This department is now fully equipped for the training of patients in all forms of gardening. The patients received a good training in the principles of market gardening. The produce was supplied to the Institution, and the surplus was sent to market or sold privately. The staff consisted of a head gardener, inside and outside foremen, 7 under gardeners, and 1 carter.

FOREST NURSERY.

44 patients enrolled for training in this department. The work, as usual, consisted in the sowing of seeds and the rearing of young trees. Most of the trees were sent to the Afforestation Scheme at Camps. Privet was grown for the hedges in the various housing schemes, and the planting was done under the supervision of our head forester. There was a ready sale for the roses grown in this department. A great many private orders were obtained for trees and shrubs. Willows were also grown for the Basketmaking Department. The staff consisted of a head forester, who is also in charge of Camps, foreman forester, 5 under foresters, a carter, and a caretaker. The Apiary supplied 132 lbs. of honey to the Institution.

POULTRY FARM.

During the year 56 patients enrolled for training. The work in this department is very suitable for tuberculous patients, as it is essentially an open-air occupation, and the duties are not arduous. There is a certificated poultry-maid in charge, and the average number of patients working was 20. A Gloucester incubator for 150 eggs was purchased, and we now have facilities for hatching 650 eggs in our incubator house. The stock of poultry consisted of light and heavy breeds, and included Wyandottes, Rhode Island Reds, Black and White Leghorns. Owing to the exposed situation of the Poultry Farm, it was found that these were the varieties which thrived best. A number of turkeys was hatched and reared for the Christmas market. A gratifying feature was the number of hatching eggs and day-old chicks sold, viz., 2,184 hatching eggs and 945 day-old chicks, a marked increase on previous years.

Altogether, during the year, 1,570 chickens and 48 turkeys were hatched, an increase of 534 on the previous year. At the end of the year the stock consisted of 220 pullets, 6 hens, 27 cockerels, 275 cocks, 11 ducks, 2 drakes—total, 541 fowls.

PIGGERY.

The work in this department was done entirely by patients, under the supervision of the Farm Manager. A fully-trained patient is in charge, at a wage of 10s. per week. 17 patients enrolled for training, the average number working at one time being 6. The stock at the end of the year numbered 90, as follows:—1 large white boar, 1 large black boar, 2 large black brood sows, 12 middle white brood sows, 41 crossed young pigs under six months, 10 crossed young pigs under three months, and 23 crossed young pigs under six weeks.

The majority of the pigs reared were a cross between the large black and the middle white, as it was found that this type had a ready sale and complied with most of the butchers' requirements. This department continued to show a good financial return, and was one of the most profitable in the Colony.

· GUINEA-PIG DEPARTMENT.

This department continued to supply the County Laboratory, the work being done by two patients.

Sold, - - - - -	65
Stock at end of year, - - - - -	60

INSTITUTION WORKSHOP.

This department, organised for the carrying out of general Colony repairs, was carried on successfully during the year, patients with previous occupational experience being employed. 9 patients came under this category.

GARAGE.

The garage continued to be worked in conjunction with the Motor Repair Department, all the work in connection with our two motor lorries being done by trainees from this department—a good example of the value of Colony training. To stimulate healthy rivalry, a trainee, who had completed his training, was put in charge of each of our two lorries. This arrangement has worked very satisfactorily, the lorries always being clean and in good condition. The Committee approved of new sliding doors, and it is hoped to erect these in the near future. The question of replacing our old Wolseley lorry will have to be considered. It has done very useful work, and has now reached the derelict stage.

FARM.

The farm continued to supply milk to the Colony and the County Hospital, Blantyre. The stock is a pedigree Ayrshire herd, and we were again licensed to produce Certified Milk (the highest grade). The average marks for the routine veterinary inspection of the stock, byres, &c., reached the high figure of 97 per cent. The herd passed the tuberculin test, with the exception of two bull stirks. These were immediately slaughtered, but no gross lesion could be detected.

We were members of the Scottish Milk Records Association, and the regular examination of the tester showed that the average percentage of butter fat was 4, and 4 cows yielded over 1,000 gallons of milk per annum, the average for the whole herd being 790 gallons.

As in the previous year, all our milking utensils were sterilised in the steam chest, and this, with in addition clean milking methods, has enabled us to attain a very high standard of cleanliness. The routine bacteriological examination of the milk showed that a composite sample contained only 2,720 blood heat organisms per c.c., and coliform bacilli were absent in one-tenth of a c.c.

Miss Allan was appointed dairymaid in May. The staff consisted of Farm Manager, dairymaid, assistant dairymaid, byreman, milkers, 2 ploughmen, and 2 odd men.

Stock at end of year was as follows:—1 stock bull rising 2 years, 3 bull stirks, 40 cows, 31 heifers, 7 heifer calves, 1 bull calf, 5 work horses, 1 filly.

INDUSTRIAL WORKSHOPS.

The experience gained in the running of these workshops since 1923 justifies one in expressing certain opinions regarding their place in a Colony scheme for the vocational training of tuberculous men.

An important factor is the suitability of the patient, both from the physical and mental aspect. The age of the trainee must be carefully considered. A trainee in the early twenties is generally more adaptable, and, as a rule, for health reasons, has not received much training in any occupation. A man past middle life is generally more set, and it is usually advisable to give him a course of occupational therapy, unless his previous occupation has been a very unhealthy one.

In discussing the details of the occupations, it is obvious that printing is very suitable for a settlement where the work can be done under excellent hygienic conditions, and, from the commercial point of view, it can generally be made a financial success. One could not consider it at all suitable for a Colony. The occupation must be considered entirely from the trainee's point of view, and the commercial aspect to the Colony must be a very secondary factor. It should be one that does not require much capital to set up the trainee in business for himself. As the trainees have obviously very little means, it would be fatal to train in an occupation that requires expensive machinery, *e.g.*, printing. The occupation should be essentially healthy, and one should state at this stage that it is a mistake to train a man in a new occupation if he is already skilled in one that is of a healthy nature. A man is naturally more proficient in a trade at which he has worked for many years. Anyone in this category should receive a course of occupational therapy only.

Taking all these factors into consideration, it was decided to give vocational training at Hairmyres in the following occupations:—Motor driving and repairing; cabinetmaking and rural carpentry; basketmaking; and boot-repairing. Owing to the long period of

residence required, it was agreed to pay each trainee 5s. a week after a probationary period of one month. This is certainly not an excessive sum. It is advisable that the trainee, on completion of his training, should obtain a certificate from some recognised authority outside the Colony, as we consider this would have some influence with employers.

To make a scheme of vocational training a success for the tuberculous, it is essential that the trainee should not be lost sight of after his training has been completed. The best means of attaining this is by an After-care Committee, which would guide and advise the trainee. It might be possible to consider the question of a grant or loan from the Local Authority to start the man in business. One must remember that you are dealing with a tuberculous man, and psychologically a tuberculous patient is difficult and requires careful handling.

The foregoing remarks are extracts from a paper read to the Royal Sanitary Association of Scotland at their Annual Conference at Ayr this year.

As previously stated, the minimum period for training is twelve months. The trainees work for six hours a day, divided into two spells of three hours—9-12 and 2-5—and there is an instructor in charge of each department. There is accommodation for 36 trainees, as follows:—Motor, 12; cabinetmaking, 12; boot-repairing, 6; basketmaking, 6.

All the trainees were selected cases; that is to say, they showed no evidence of active disease and were in fairly-good physical condition.

Although training is our first consideration, it is gratifying to record a satisfactory position from the commercial point of view. The receipts in the various departments totalled over £1,343.

This year, when a trainee was discharged on completion of his training, his home was visited by the instructor of the respective department, who advised him regarding the suitability of his surroundings for carrying out his occupation, and also assisted him to purchase the necessary tools, materials, &c., at the cheapest rate, also, when any further material was required, he was supplied at the Colony at wholesale rates. This is only a small development, but it was much appreciated by the trainees, and made them feel that they were not being neglected. A further development might be to sub-contract some orders to these trainees when the pressure is great in our own department.

This year, as part of the training scheme, the trainees in the Motor Department visited the Motor Show; those in the Cabinetmaking and Boot-repairing Departments visited Shieldhall Factory; and the trainees in the Basketmaking Department went to the Blind Asylum Basket Factory.

The following table has been compiled from information obtained from a questionnaire sent to all the trainees who had completed their training since our workshops opened :—

	Cabinet- making Dept.	Basket- making Dept.	Boot Repair- ing Dept.	Motor Dept.	Ministry of Pensions.	Civilian.
Number of trainees who have completed training, - -	18	8	16	37	24	55
Number working at trade in which they received training, -	8	4	9	17	14	24
Number working at another trade—						
(a) Original occupation,	—	—	—	—	—	—
(b) New occupa- tion,	2	2	1	4	2	7
Number failed to find employment, -	1	1	3	5	2	8
Poor health, - -	2	1	1	2	1	5
Dead, - - -	4	—	—	1	1	4
Unable to trace, -	1	—	2	8	4	7

MOTOR DEPARTMENT.—This is one of the most popular departments, and, from the previous table, one can conclude that training in this department offers a good prospect of permanent employment. 23 patients enrolled for training, and 9 were successful in obtaining the Driving Certificate of the Royal Scottish Automobile Club. This certificate indicates a good standard of efficiency, and is only obtained after a complete driving test, with oral examination. This year we procured three old cars for demonstration purposes, an Austin, Wolseley, and Ford. These embody all the different types of gear change, and thus ensure a thorough practical training. The old Wolseley car was dismantled and cut open at various parts to demonstrate the working arrangements. The usual routine lectures and demonstrations were given by the instructor, and there was a certain amount of repair work.

CABINETMAKING DEPARTMENT. — The trainees in this department continued to be very fully employed during the year. With a view to improving their knowledge of the finer side of cabinetmaking, in March, Mr. Miller, Edinburgh, was appointed special instructor. He gave weekly demonstrations. The appointment at first was for a period of six months, but it was arranged to extend this for a further six months. The experiment has been a decided success, the object being to enable the trainees to make the finer articles of furniture, *e.g.*, small mirrors, tables, period furniture, &c., that is not generally made by machinery, that is to say, mass production. They were also shown how to repair furniture. 3 trainees were successful in obtaining the Cabinetmaking Certificate, Grade I, of the City and Guilds of London Institute. The sales for the year amounted to over £600.

BOOT-REPAIRING DEPARTMENT. — The statement previously made regarding after-care and the visiting of the homes by the instructor applies particularly to this department, also the question of a grant to the trainees. This is an occupation which offers a good prospect of success. The department has been kept fully employed. Repairs, amounting to £333, were executed, an increase of £55 on the previous year. 9 patients enrolled for training. Several men with crippled lower limbs have been employed in this department.

BASKETMAKING DEPARTMENT. — There was a marked increase in the turnover in this department, due to efficient advertising and to the excellent class of work turned out. Chairmaking has been a feature of the year. The receipts totalled £356, an increase of over £65 on the previous year. 4 trainees obtained the Basketmaking Certificate, Grade I, of the City and Guilds of London Institute, and one trainee obtained the certificate of the Final Grade. This latter achievement was rather noteworthy as the standard set is very high, and is a feat that could not be attained by every trainee.

HAIRMYRES COLONY,

FEBRUARY, 1929.

Veterinary Inspection of Dairy Herds.

The veterinary inspection of dairy herds was carried out by the County Veterinary Inspector and an assistant.

The record shows that 943 dairy herds, containing 19,484 cows, were examined. As on former occasions, samples of milk were drawn from all udders which, on examination, showed suspicious conditions. In this way 232 samples of milk were taken, and sent to the Bacteriological Laboratory, where, after examination, 34 were found to contain tubercle bacilli, 65 were found to contain other infectious organisms, and 134 gave negative results. 10 samples were also examined for "ropiness," and all proved negative.

In all cases where infectious organisms were found in the milk samples, certificates were granted by the Veterinary Surgeon in terms of Section 4 (2) of the Milk and Dairies (Scotland) Act, 1914. Where tubercle bacilli were present, arrangements were made with the owners to have the cows slaughtered immediately, in terms of Article 5 (1) of the Tuberculosis Order, 1925. In all other cases where cows were found to be suffering from "disease liable to infect or contaminate the milk" (*e.g.*, streptococci found in the milk sample), communications were at once issued to the owners pointing out their responsibilities under the Milk and Dairies Act, and inquiring as to the arrangements they were making to comply with the requirements of Section 13 (1) and (2), and Section 24 (1) and (2) of the Act.

Cows with other abnormal conditions of the udder were also recorded, and the results are shown in the following table:—

INSPECTION OF DAIRY HERDS, 1927, CLASSIFIED ACCORDING TO PARISH.

PARISH.	Herds Registered.	Herds Inspected.	Cows Inspected.	Cows with Abnormal Conditions of Udder.						Samples of Milk.			
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Total.	Number taken.	Number found to contain Tubercle bacilli.	Number found to contain other infectious organisms.	Number negative.
Avondale, - -	140	162	3,964	9	124	2	27	20	182	44	10†	13	22
East Kilbride, -	99	140	3,638	5	125	15	19	10	174	38	5	9	24
Glasford, - -	49	63	1,231	1	38	2	12	3	56	21	1	5	15
Stonehouse, -	30	37	806	...	21	...	2	3	26	3	...	1	2
<i>First Division, -</i>	<i>318</i>	<i>402</i>	<i>9,639</i>	<i>15</i>	<i>308</i>	<i>19</i>	<i>60</i>	<i>36</i>	<i>438</i>	<i>106</i>	<i>16</i>	<i>28</i>	<i>63</i>
Blantyre, - -	21	24	331	...	15	...	4	1	20	1	...	...	1
Bothwell, - -	72	90	1,481	2	28	3	13	3	49	23	2	5	16
Cambuslang, -	24	27	571	1	26	2	4	2	35	8	1	4	3
Cambusnethan, -	49	64	1,304	2	35	1	16	7	61	14	2	5	7
Dalserf, - -	21	27	517	...	12	1	6	4	23	4	...	1	3
Dalziel, - -	6	8	225	...	10	1	6	...	17	4	...	3	1
Hamilton, - -	46	64	1,433	4	53	8	11	3	79	25	4	7	14
<i>Second Division, -</i>	<i>239</i>	<i>304</i>	<i>5,862</i>	<i>9</i>	<i>179</i>	<i>16</i>	<i>60</i>	<i>20</i>	<i>284</i>	<i>79</i>	<i>9</i>	<i>25</i>	<i>45</i>
New Monkland, -	64	98	1,429	1	4	3	1	1	10	7	1	4	2
Old Monkland, -	29	37	756	1	12	3	6	5	27	12	1	2	9
Shotts, - -	62	102	1,798	7	43	7	9	4	70	28	7	6	15
<i>Third Division, -</i>	<i>155</i>	<i>237</i>	<i>3,983</i>	<i>9</i>	<i>59</i>	<i>13</i>	<i>16</i>	<i>10</i>	<i>107</i>	<i>47</i>	<i>9</i>	<i>12</i>	<i>26</i>
<i>Midvale Ward, -</i>	<i>712</i>	<i>943</i>	<i>19,484</i>	<i>33</i>	<i>546</i>	<i>48</i>	<i>136</i>	<i>66</i>	<i>829</i>	<i>232</i>	<i>34</i>	<i>65*</i>	<i>134</i>

*These samples were taken from 63 cows.

†One sample also contained other infectious organisms.

The total figures for abnormal conditions of the udder include 20 cases of suspected tubercle which gave negative results, and are therefore classified as induration.

These abnormal conditions, and the number of cows affected, were as follows:—Tubercle, 33; atrophy, 546; mammitis, 48; induration N.T., 136; and eruption on teats, 66; a total of 829 or 4·25 per cent. of the total cows examined.

MATERNITY AND CHILD WELFARE.

Health Visiting Staff.—There are 17 full-time Nurse Health Visitors, each of whom is general trained and holds the certificate of the Central Midwives Board, and in addition to the visitation of mothers and infants they act as Assistant Inspectors of Midwives. Part-time assistance is also received from seven District Nursing Associations.

Births Registered.—There were registered the births of 5,382 infants—males, 2,729; and females, 2,653—which is equivalent to a birth-rate of 22·5 per 1,000 of the population. This is the lowest birth-rate which has ever been recorded in the Middle Ward District, and shows a decrease of 1·4 compared with the rate for 1927. The rates for the past five years are shown in Table A, which also shows the rates for decennial periods from 1891 to 1920. There were 321 illegitimate births—males, 163; and females, 158—which is equal to 5·9 per cent. of the total births.

Births Notified.—The number of statutory notifications received was 5,262, and of these 5,039 were notifications of live-born children, the remainder—223—being notifications of still-births. The percentage of births notified to births registered was 93·6, excluding still-births. In addition, 217 notifications were received as a result of letters addressed to parents, and 140 were brought to our notice by the Nurse Health Visitors, giving a gross total of 5,619. The sources of notifications were as follows:—

Doctors.	Midwives.	Handy- women.	Parents.	Institutions.	Other Sources.	Health Visitors.	Total.
1,246	2,948	4	471	645	165	140	5,619

To the number of births notified there falls to be added the births of 112 infants which occurred in institutions in the Middle Ward, but whose parents resided in areas outwith the Middle Ward District. 104 of these were notified from Bellshill Hospital, 3 from Omoa House, Cleland, and 5 from Thrashbush House, Airdrie.

Table M I shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, deaths registered, and the infantile death-rate, the information being tabulated according to registration districts,

TABLE M I.

BIRTHS REGISTERED AND NOTIFIED.

VISITS MADE BY NURSE HEALTH VISITORS AND INFANTILE MORTALITY RATES FOR 1928.

REGISTRATION DISTRICTS.	BIRTHS.			NUMBER OF VISITS.			ATTENDANT AT CONFINEMENT.				INFANT DEATHS.				
	Registered. Legiti- mate.	Notified.		First.	Subsequent. Infants.		Special.	Total.	Doctor alone or with Handy- woman.	Midwife. and Midwife.	Handy woman.	B.B.A. Instit.	Regis- tered. Births.	Rate per 1,000 Births.	
		Alive.	Still- born.		Mothers.	Mothers.									
Avondale, - - -	89	5	99	—	100	557	22	60	42	32	20	1	5	7	74.4
East Kilbride, - - -	93	3	99	1	77	435	109	17	55	2	2	1	17	5	52.0
Glasford, - - -	18	2	22	1	26	279	—	—	4	12	7	—	3	0	00.0
Stonehouse, - - -	86	2	89	5	91	779	—	3	18	30	37	—	6	5	56.8
<i>First Division,</i>	286	12	309	7	294	2,050	131	80	119	76	66	1	31	17	57.0
Blantyre, - - -	487	23	503	28	494	2,737	300	439	16	94	299	3	11	68	133.3
Bothwell, - - -	447	21	473	20	441	4,256	173	644	23	87	246	2	4	43	91.8
Bellshill, - - -	560	37	598	27	648	5,813	88	565	28	254	264	1	5	59	98.8
Holytown, - - -	429	36	460	21	441	3,153	108	435	61	126	166	3	11	52	111.8
Cambuslang, - - -	573	42	613	26	587	4,265	59	632	203	75	232	5	3	44	71.5
Cambusnethan, - - -	305	16	323	10	325	3,780	62	212	175	73	44	12	2	20	62.3
Calderhead, - - -	112	6	117	6	98	383	2	90	81	6	2	3	—	13	110.1
Dalserf, - - -	107	7	117	4	131	1,240	5	49	48	18	46	3	2	8	70.1
Larkhall, - - -	336	22	358	16	365	2,857	20	383	39	82	176	13	7	37	103.3
Dalziel, - - -	23	3	28	1	23	230	—	—	5	7	7	—	4	1	38.4
Hamilton, - - -	162	13	178	8	189	1,923	31	123	27	29	105	2	2	14	80.0
<i>Second Division,</i>	3,541	226	3,758	167	3,742	30,637	848	3,592	706	851	1,587	47	504	359	95.3
New Monkland, - - -	306	25	335	18	318	2,355	83	35	19	63	207	1	2	27	81.5
Old Monkland (East), - - -	99	—	96	1	100	568	45	36	5	26	47	—	2	7	70.7
Do. (Coatbridge) - - -	70	9	73	4	70	226	4	14	15	16	33	—	—	8	101.2
Do. (West), - - -	280	14	305	11	282	1,486	1	84	77	58	134	—	—	28	95.2
Shotts (East), - - -	119	12	132	4	98	424	2	48	49	16	20	3	—	13	99.2
Do. (Middle), - - -	64	7	65	1	52	796	3	74	38	2	2	4	1	7	98.5
Do. (Calderhead), - - -	176	12	192	7	153	565	6	166	112	16	9	5	1	15	79.8
Do. (West), - - -	97	4	105	3	108	922	5	91	75	14	13	—	6	6	59.4
Do. (North), - - -	23	—	26	—	11	42	—	—	—	4	6	—	1	4	173.9
<i>Third Division,</i>	1,234	83	1,329	49	1,192	7,384	149	548	390	215	471	13	7	115	87.3

Reference to the table shows that the total number of domiciliary visits made by the staff during the year was 50,647, a decrease of 208 compared with the previous year. The special visits referred to numbered 4,220, and were made in connection with the following conditions:—Ante-natal cases, 1,948; infant death inquiries, 202; ophthalmia neonatorum, 742; conjunctivitis, 9; blepharitis, 14; squint, 507; albuminuria, 5; puerperal-fever, 50; whooping-cough, 107; adopted babies (first and re-visits), 118; measles, 56; ear, nose and throat, 261; rickets, 1; inquiries regarding accounts under the Midwives Act, 192; and educational, 8.

Attendance at Confinement.—Particulars connected with 5,024 live infants have been recorded. Of this number it has been found that 1,175 (23·3 per cent.) were attended by medical practitioners alone, or assisted by neighbours or relatives; 1,070 (21·2 per cent.) by doctors assisted by certified midwives; 2,079 (41·3 per cent.) by certified midwives; 61 (1·2 per cent.) by women not on the midwives' roll; 595 (11·8 per cent.) occurred in institutions; and in the case of 44 (0·8 per cent.) the birth took place before the arrival of an attendant.

Of the 223 still-births notified, particulars of 204 have been recorded, and the attendants at birth in these were as follows:—72 (35·2 per cent.) by doctors and midwives; 40 (19·6 per cent.) by doctors alone, or assisted by an unqualified person; 45 (22·0 per cent.) by midwives alone; 36 (17·6 per cent.) in institutions; and 11 (5·3 per cent.) B.B.A.

Comparison with the previous years shows that there is remarkably little change in the figures giving the classification of the attendants at birth.

		1924	1925	1926	1927	1928	
Cases attended by	Midwives,	44·0	43·0	39·9	39·2	40·6	per cent.
Do.	Doctors and						
	Midwives,	22·5	22·6	22·4	23·0	21·8	„
Do.	Doctors,	24·8	24·5	25·1	22·8	23·2	„
Do.	Handywomen,	1·6	0·6	0·6	1·2	1·1	„
Do.	Institutions,	5·8	8·2	11·1	12·6	12·0	„
Do.	B.B.A.,	1·1	0·7	0·6	0·8	1·0	„

Feeding at Age of Six Months.—5,171 records, relating to infants born between July, 1927, and June, 1928, were investigated to determine the feeding at the age of six months, and the results were classified as follows:—Wholly breast fed, 2,858 (55·2 per cent.); partially breast fed, 165 (3·1 per cent.); artificially fed, 1,468 (28·3 per cent.); died or removed, 642 (12·4 per cent.); and information incomplete, 38 (0·7 per cent.).

Infantile Mortality.

Deaths of infants under the age of one year numbered 491, which is equivalent to an infantile mortality rate of 91·23 per 1000 births, compared with 87·41 for the previous year. The infantile mortality rate in each registration district is set forth in Table M I.

Table M II shows the deaths arranged according to group-causes and age-periods:—

TABLE M II.

CAUSE OF DEATH.	AGE PERIODS.										Rate per 1,000 Births.
	WEEKS.				Total. - 4	MONTHS.				Total. - 12	
	- 1	1-2	2-3	3-4		1-3	3-6	6-9	9-12		
1. Prematurity, - -	71	7	5	9	92	12	—	—	—	104	19·32
Congenital Malfor- mation, - -	6	1	—	—	7	6	1	1	—	15	2·78
Congenital Heart, -	2	1	—	1	4	2	—	—	—	6	1·11
Atelectasis, - -	4	—	—	—	4	1	—	—	—	5	0·92
Injury at Birth, -	5	1	—	—	6	—	—	—	—	6	1·11
2. Atrophy, Debility, and Marasmus, -	29	9	3	7	48	14	11	1	2	76	14·12
3. Diarrhœa, - -	1	1	1	1	4	12	12	7	4	39	7·24
4. Pneumonia, - -	1	—	3	—	4	5	15	12	14	50	9·29
Bronchitis, - -	—	2	3	4	9	9	4	2	2	26	4·83
Other Respiratory Diseases, - -	—	—	1	1	2	2	1	—	—	5	0·92
5. Tuberculosis—											
Meningeal, -	—	—	—	—	—	1	3	1	5	10	1·85
Abdominal, -	—	—	—	—	—	—	—	—	3	3	0·55
6. Convulsions, - -	1	1	—	3	5	2	2	2	2	13	2·41
Meningitis, - -	—	—	—	—	—	3	4	3	2	12	2·22
7. Measles, - -	—	—	—	—	—	1	3	8	18	30	5·57
Whooping-cough, -	—	—	1	3	4	7	6	14	18	49	9·10
Diphtheria, - -	—	—	—	—	—	1	—	—	—	1	0·18
Erysipelas, - -	—	—	—	—	—	1	1	—	—	2	0·37
8. Syphilis, - -	—	—	—	1	1	—	—	—	—	1	0·18
9. Violence, - -	1	—	—	—	1	—	1	—	1	3	0·55
10. All other causes, -	2	3	1	1	7	4	7	9	8	35	6·50
	123	26	18	31	198	83	71	60	79	491	91·23
Rate per 1,000 births,	22·85	4·83	3·34	5·76	36·80	15·42	13·19	11·14	14·67	91·23	

TABLE M III.—MATERNAL DEATHS FOR EACH YEAR SINCE 1910, ARRANGED ACCORDING TO GROUP CAUSES; NUMBER OF BIRTHS, BIRTH-RATES, AND MATERNAL DEATH-RATES EXPRESSED PER 1,000 BIRTHS.

Registered Cause.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Puerperal Sepsis,	21	9	13	10	13	7	10	10	7	15	23	25	20	17	15	19	16	20	25
Albuminuria of Pregnancy																			
and Eclampsia,	5	4	1	4	3	4	6	3	6	7	5	5	10	10	8	6	7	5	2
Hæmorrhage,	7	7	5	11	5	8	6	3	2	4	6	4	11	3	3	3	5	4	3
Cardiac Failure and Shock,	2	3	2	4	4	2	3	—	3	2	—	6	6	6	4	1	2	1	1
Abortion,	—	3	2	2	3	1	—	—	1	2	1	—	2	1	—	—	—	1	1
Toxæmia of Pregnancy,	3	—	1	4	3	1	2	1	—	—	2	3	1	5	1	2	1	—	1
Other Diseases and																			
Accidents of Pregnancy,	3	4	7	4	5	10	8	4	4	7	7	2	4	8	3	7	8	2	1
<i>Total,</i>	41	30	31	39	36	33	35	21	23	37	44	45	54	50	34	39	39	33	34
Registered Births,	7,309	6,981	7,111	7,001	7,388	6,684	6,572	6,072	6,420	6,410	7,562	7,023	6,364	6,218	6,251	6,176	5,928	5,640	5,382
Birth-rates,	36.1	34.3	34.9	33.8	35.3	31.9	31.4	28.6	30.2	29.8	35.0	32.1	28.3	27.6	26.3	26	25	23.9	22.5
Death-rate per 1,000 births (Puerperal Sepsis),	2.87	1.28	1.82	1.42	1.75	1.04	1.52	1.64	1.09	2.34	3.04	3.56	3.14	2.73	2.39	3.07	2.69	3.5	4.64
Death-rate per 1,000 births (excluding Puerperal Sepsis),	2.73	3.00	2.53	4.14	3.11	3.89	3.80	1.81	2.49	3.43	2.77	2.84	5.34	5.31	3.03	3.23	3.88	2.3	1.67
Death-rate per 1,000 births <i>Total,</i>	5.60	4.29	4.35	5.57	4.86	4.93	5.32	3.45	3.58	5.77	5.81	6.40	8.48	8.04	5.43	6.31	6.57	5.8	6.31
			4.93								4.61						6.83		

Maternal Mortality.

The maternal deaths, including 25 from puerperal septicaemia, numbered 34, which is an increase of 1 compared with the previous year. In the foregoing table the group-causes, together with the number of deaths referable thereto for each year since 1910, are shown. The registered deaths and the birth and death-rates per 1,000 births are also given.

Table M IV shows the total number of births notified, the number of institutional births and maternal deaths, and the institutional confinements and maternal mortality rates per 1,000 births since the year 1916:—

TABLE M IV.

Year.	Total Births Notified.	Institution Births.	Maternal Deaths.	Institution Confinements per 1,000 Births.	Maternal Mortality per 1,000 Births.
1916	6,483	48	35	7·40	5·39
1917	5,944	15	21	2·52	3·53
1918	6,385	37	23	5·79	3·60
1919	6,308	58	37	9·19	5·86
1920	7,718	174	44	22·54	5·70
1921	7,229	267	45	36·92	6·22
1922	6,478	238	54	36·74	8·33
1923	6,245	314	50	50·28	8·00
1924	6,343	383	34	60·38	5·36
1925	6,343	523	39	82·45	6·14
1926	6,115	647	39	105·80	6·37
1927	5,714	676	33	118·30	5·77
1928	5,619	645	34	114·78	6·05

Puerperal Septicaemia.

The number of cases of puerperal septicaemia reported during the year was 106, representing an incidence rate of 19·6 per 1,000 births; this is an increase of 5·1 per 1,000 births compared with the previous year's figure. The deaths numbered 25, compared with 20 the previous year, and the death-rate per 1,000 births has been accordingly increased from 3·5 to 4·6.

The following table shows the incidence and death-rates since 1916 :—

TABLE M V.

Year.	Total Cases.	Rate per 1,000 Births.	No. of Deaths.	Fatality Rate.	Death-Rate per 1,000 Births.
1916	21	3·1	11	52·4	1·6
1917	22	3·6	10	45·4	1·6
1918	14	2·1	5	35·7	0·7
1919	37	5·7	15	40·5	2·3
1920	60	7·9	25	41·6	3·3
1921	68	9·6	25	36·7	3·5
1922	69	10·8	20	28·9	3·1
1923	62	9·9	17	27·4	2·7
1924	54	8·6	15	27·7	2·4
1925	53	8·5	19	35·8	3·0
1926	55	9·2	16	29·0	2·7
1927	82	14·5	20	24·3	3·5
1928	106	19·6	25	23·5	4·6

89 or 83·9 per cent., of the cases received hospital treatment; 88 being removed to the County Hospital, Motherwell, and 1 to Belvidere Hospital, Glasgow.

In 26 cases a doctor alone, or with the assistance of a neighbour or relative, conducted the confinement, and delivery was effected by means of forceps in 14 cases. In 24 a doctor and certified midwife were in attendance, and in 15 of these cases forceps were used. In 26 instances the attendant was a certified midwife, and in 1 a handywoman was present at birth; 22 of the births took place in an institution, while in 7 (5 B.B.A., and 2 abortions) there was no attendant present.

The incidence of the disease according to the number of pregnancy at which it occurred was as follows :—

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	12	Total.	
No. of Cases,	-	38	15	11	13	7	5	5	2	3	4	2	1	106

The age distribution of the cases and deaths was:—

	Years	Under					Over	Total.
		20	20-25	25-30	30-35	35-40	40	
Cases,	- -	5	31	21	24	19	6	106
Deaths,	- -	1	4	3	8	8	1	25

Only in 14 cases were the mothers unmarried.

Every endeavour has been made to secure the widest possible notification of puerperal sepsis and puerperal pyrexia, and the arrangements to this end are set forth in the two following letters, which were circularised to all practitioners in the district:—

“ Hamilton, 27th October, 1926.

“ DEAR SIR/MADAM,

“ PUERPERAL SEPSIS.

“ I am instructed by the District Committee to draw your attention to the provisions which have been made in the County for the treatment of patients suffering from puerperal sepsis.

“ Permanent accommodation has been set aside for these patients in the County Hospital, Motherwell, and in addition to the resident Medical Staff, Dr. Samuel J. Cameron, Glasgow, acts as Consulting Gynæcologist.

“ As you are aware, the Institution is provided with a fully-equipped operating theatre, the services of the County Bacteriologist are available, and the hospital laboratory has recently been extended.

“ These arrangements have been approved by the Scottish Board of Health, who, in a Circular dated 15th September, 1926, express the hope that adequate facilities for skilled hospital treatment might lead to earlier and more complete notification of puerperal sepsis.

“ In this connection I am to say that it is not the intention of the Local Authority to limit hospital treatment to the more serious cases, but that patients with symptoms of septic infection, however slight and indefinite, will be promptly admitted to the Institution. Admission should be arranged directly with the County Hospital, Motherwell (Telephone No., Motherwell 253), and in the formal notifications addressed to me at this Office, the diagnosis of puerperal sepsis may be queried if the practitioner has not reached a definite conclusion.

"I shall be glad to know of any other assistance which this Department might afford you in dealing with doubtful illnesses.

"Yours faithfully,

"(Signed) J. HUME PATTERSON,
"Medical Officer of Health."

"Hamilton, 10th November, 1928.

"DEAR SIR,

"PUERPERAL FEVER AND PUERPERAL PYREXIA.

"As you are aware the term Puerperal Pyrexia was introduced to cover febrile illnesses appearing during the puerperium irrespective of their causation. The British Medical Association include within the term Puerperal Morbidity all conditions in which the temperature reaches a height of 100° F. on two occasions from the end of the first to the end of the eighth day after delivery. Although the condition is not notifiable, practitioners evidently find the expression a convenient one as they notify cases of 'fever following confinement,' 'puerperal pyrexia,' and so on. I believe that doctors would welcome the opportunity of a consultation in some of these doubtful cases, and I have arranged to make available the services of Dr. Reid, Physician-Superintendent of the County Hospital, Motherwell, who has a wide experience in the diagnosis and treatment of Puerperal Sepsis. The Institution has special accommodation and facilities for the treatment of these diseases and Dr. Sam. J. Cameron is the consulting Gynæcologist.

"Requests for consultations should be made directly to Dr. Reid, County Hospital, Motherwell. Tel. Nos., 253 and 254 Motherwell.

"Yours faithfully,

"(Signed) J. HUME PATTERSON."

The variations in names which are applied to septic and febrile conditions occurring during the puerperium is exemplified in the following list of conditions which were notified to the Department during the year. This list does not include cases which were reported directly to Motherwell Hospital for removal and in respect of whom no formal notification was made by the practitioner.

Puerperal fever, 41; puerperal sepsis, 24; puerperal septicaemia, 5; acute puerperal sepsis, 1; puerperal fever (phlebitis), 1; puerperal

pyrexia, 6; pyrexia following being confined, 1; fever following confinement, 3; febrile condition (post confinement), 1; and suspected puerperal fever, 1.

Still-Births.

The total number of notifications of still-births received during the year was 223, and those were received from:—Doctors, 62; midwives, 94; health visitors, 9; parents, 1; and institutions, 57.

Inquiries by the Nurse Health Visitors were made into 204 cases, and the following particulars obtained:—

Maturity.—The births occurred at full term in 128 cases, in 31 at the eighth month, in 30 at the seventh month, and 3 at the sixth month; in 12 cases the duration of pregnancy was indefinite.

Attendant at Birth.—The attendant at birth was as follows:—Doctor and midwife, 72; doctor alone or with unqualified woman, 40; midwife alone, 45; institutional cases numbered, 36; and B.B.A., 11.

Nature of Confinement.—The confinement was ascertained to have been normal in 144 cases and abnormal in 60, instrumental delivery taking place in 40 of the latter.

The pregnancy at which still-birth occurred is shown as follows:—

											11th and	Not	Total.
Pregnancy,	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	over.	stated.	
Still-births,	52	29	14	17	13	18	10	9	9	10	19	4	204

Previous Still-Births.—In 161 cases no previous still-births had occurred; in the remaining 43 cases previous still-births had taken place, viz.:—1 in 21 cases; 2 in 11; 3 in 4; 4 in 2; 5 in 3; 8 in 1; and no information, 1.

Employment of Mother.—Only in 9 cases were the mothers engaged in other than domestic duties.

Age Distribution:—

-20	20-25	25-30	30-35	35-40	40-45	Unstated.	Total.
10	31	41	47	38	34	3	204

Health of Mothers during Pregnancy:—

Good, 145; fair, 50; poor, 8; unstated, 1; total, 204.

Probable Cause of Still-Birth.—Delayed labour, 18; abnormal presentation, 5; abnormalities of the cord, 12; albuminuria and eclampsia, 15; placenta prævia, 1; ante-partum hæmorrhage, 19; hydramnios, 2; contracted pelvis, 6; pneumonia, 1; injury to mother, 13; ill-health of mother, 11; prematurity, 11; anencephalus, 2; hydrocephalus, 3; large child, 5; craniotomy, 5; and spina bifida, 1.

Ophthalmia Neonatorum and Discharging Eyes.

Notified Cases of Ophthalmia Neonatorum.—Cases, 110; rate per 1,000 births, 20·4; admissions to hospital, 27.

Of the total cases reported, 51 (46·3 per cent.) were notified by doctors; 18 (16·3 per cent.) by certified midwives; 4 (3·6 per cent.) by both doctors and midwives; 36 were notified from the County Hospital, Bellshill, and 1 from another Local Authority. In 27 cases a doctor alone, or with the assistance of a neighbour, was in attendance at the confinement; that is, the disease developed in connection with 2·2 per cent. of the total number of confinements conducted by doctors. Doctors and midwives were present at the birth in 11 cases, representing 0·9 per cent. of the total cases attended by doctors and midwives. A certified midwife alone was present at the birth in 28 cases, which is 1·3 per cent. of the total midwives cases. In 4 cases the attendant at birth was a neighbour. 36 cases occurred in institutions, and in 4 instances the confinement took place before the arrival of an attendant.

In the following table the 110 notified cases are classified according to the severity of the disease and to the bacteriological findings:—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, - - - - -	1	2	1	4
Other organisms, - - - - -	31	2	—	33
Pus but no organisms, - - - - -	24	2	3	29
No pus no bacteria, - - - - -	7	—	—	7
No swab, - - - - -	37	—	—	37
	100	6	4	110

Discharging Eyes.—The number of cases of discharging eyes discovered was 87. 3 of these being removed for hospital treatment. The attendant at birth was as follows:—Doctor alone or with the assistance of a neighbour, 41; doctor and midwife, 3; midwife alone, 28; and handywoman, 2. In 8 cases the births occurred in Institutions, and in 5 the babies were born before the arrival of an attendant.

The severity of the condition and the bacteriological findings are shown below:—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, - - - - -	—	—	1	1
Other organisms, - - - - -	55	3	—	58
Pus but no organisms, - - - - -	18	1	1	20
No pus no bacteria, - - - - -	5	—	—	5
No swab, - - - - -	3	—	—	3
	81	4	2	87

In two instances some degree of impairment of vision resulted, and the cases are briefly described in the following notes:—

Baby L, an illegitimate child, born 22/1/28. The birth was premature and took place in the absence of any attendant, but a handywoman and a medical practitioner attended within an hour. No prophylactic treatment was given, and both attendants failed to notify the birth. The onset of ophthalmia was discovered to be on the tenth day, and although the handywoman and the doctor examined the child at this time and carried out treatment no notification of ophthalmia was made. The birth did not become known to the Department until the local registrar's returns were received, and when the health visitor paid her routine first visit on 29/3/28 she found a condition of advanced ophthalmia in existence, and instructed the mother to consult the family doctor immediately with a view to having the child admitted to hospital. This was carried out on 31/3/28, but by this time both corneae had been extensively damaged and total blindness of both eyes resulted.

Baby L, born 3/8/28, the confinement being conducted in emergency by a handywoman. A medical practitioner was called in

forthwith, but the infant was born before his arrival. No prophylactic treatment was given at the time of birth. The eyes began to discharge on 5/8/28, and the doctor treated the condition on the following three days when he advised the mother to take the child to the local Centre, where it was found to have severe ophthalmia and was admitted to the County Hospital, Motherwell, without delay. On dismissal the infant was reported to have very defective vision of both eyes and possibly actual blindness. The case was not notified by the local doctor, who explained that his failure to do so was an oversight, due to pressure of work. In this case the disease appears to have been of an acute fulminating character, as extensive ulceration appeared within four days of the onset.

Intimation of the occurrence of blindness was made to the Scottish Board of Health as required by their Circular letter, dated 16th July, 1921, and the cases were investigated by one of the Board's inspectors. At a special meeting of the midwives of the District one of the assistant medical officers gave a lecture on the subject of Ophthalmia Neonatorum and, with the permission of the parents, demonstrated these two cases of blindness.

Ante-Natal Cases.

The importance of ante-natal care and supervision is fully appreciated by the Local Authority, and it is hoped that some development of the work may be possible. During the year the activities of the department in this connection may be summarised as follows :—

The Nurse Health Visitors made 1,948 domiciliary visits to expectant mothers, compared with 1,868 in the previous year.

At the Child Welfare Centres 468 patients attended for the first time, and the total visits numbered 759, the total attendances during 1927 being 678.

Ante-natal cases were admitted to the various institutions as follows :—County Hospital, Bellshill, 183; Calderbank Convalescent Home, 68 (including 32 cases transferred from Bellshill Hospital); and Blantyre Hospital, 40 (including 10 transferred from Bellshill Hospital).

At the out-patient department, Bellshill Hospital, 289 expectant mothers presented themselves for examination.

At the County Laboratory 206 specimens of urine from ante-natal patients were examined, and of these, 142 were sent by midwives (62 positive), and 64 by members of the Public Health Staff (39 positive). In addition, 758 specimens were examined at the Child Welfare Centres, and 157 of these were positive.

Child Welfare Centres.

On 13th June, 1928, the Centres at Cadzōw and Chapelhall were closed. The following statement shows the day, hours and place of meeting of the existing centres:—

Centre.	Address.	Day.	Time.
*Airdrie, Sir John Wilson Town Hall, Airdrie, ...		Tuesday,	10-12 noon
Baillieston, Miners' Welfare Hall, Baillieston, ...		Monday,	2.30-5 p.m.
*Bellshill, Co-operative Hall, Mossend, ...		Tuesday,	9.30-11.30 a.m.
Bellshill, Co-operative Hall, Mossend, ...		Thursday,	2.30-5 p.m.
*Blantyre, Health Institute, Blantyre, ...		Wednesday,	9.30-11 a.m.
Blantyre, Health Institute, Blantyre, ...		Thursday,	2.30-5 p.m.
*Cambuslang, Health Institute, Cambuslang, ...		Wednesday,	9.30-11 a.m.
Cambuslang, Health Institute, Cambuslang, ...		Tuesday,	2.30-5 p.m.
*Larkhall, Sons of Temperance Hall, Larkhall, ...		Wednesday,	9.30-10.30 a.m.
Larkhall, Sons of Temperance Hall, Larkhall, ...		Thursday,	2.30-5 p.m.
Newarthill, Miners' Welfare Hall, Newarthill, ...		Wednesday,	2.30-5 p.m.
Newmains, Co-operative Hall, Newmains, ...		Wednesday,	2.30-5 p.m.
New Stevenston Masonic Hall, New Stevenston,		Tuesday,	2.30-5 p.m.
Shotts, Health Institute, Shotts, ...		Thursday,	2.30-5 p.m.
Tannochside, Miners' Welfare Hall, Tannochside,		Monday,	2.30-5 p.m.
Uddingston, E U. Church Hall, Uddingston, ...		Tuesday,	2.30-5 p.m.
*Strathaven, Road Surveyor's Office, Strathaven,		Monday,	10-12 noon

* Open each alternate week for issue of milk and meal lines.

With the exception of Cambuslang, Blantyre, and Shotts, the centres are held in hired premises, and the scope of the work is limited on that account. Health Institutes have been built by the Local Authority at the three places mentioned, and the nature of the accommodation is shown on the plan reproduced on the opposite page. The Institute at Cambuslang was opened on 3rd March, 1927, at Shotts on 11th March, 1927, and at Blantyre on 12th October, 1928.

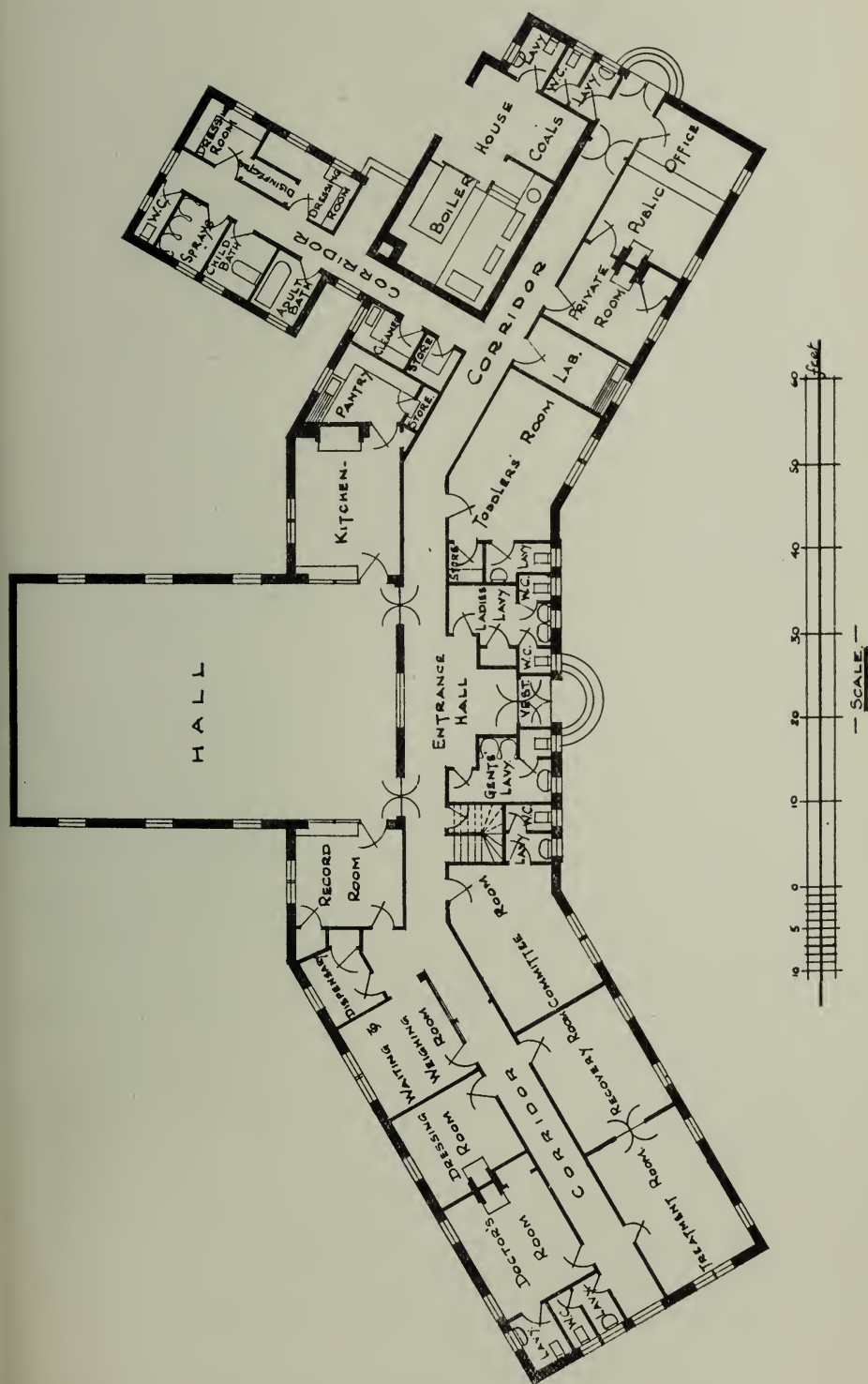


Table M VI shows the attendance of mothers, infants and children at the Child Welfare Centres during 1928.

TABLE M VI.

Centres.	No. of Sessions.	Total Attendances.		
		Mothers.	Children.	
			Under 1 year.	Over 1 year.
Baillieston, - - -	47	2,998	1,566	1,228
Bellshill, - - -	48	3,977	2,202	2,239
Blantyre, - - -	48	2,636	1,296	1,608
Cadizow, - - -	12	480	224	228
Cambuslang, - - -	48	2,937	1,498	1,590
Chapelhall, - - -	23	671	381	339
Larkhall, - - -	48	2,970	1,589	2,021
Newarthill, - - -	48	2,448	1,282	1,208
Newmains, - - -	48	1,897	1,262	912
New Stevenston, - - -	48	1,944	1,126	1,193
Shotts, - - -	48	2,433	1,547	1,151
Tannochside, - - -	46	2,257	1,333	1,203
Uddingston, - - -	48	2,896	1,457	1,505
		30,544	16,763	16,425

Medical Consultations.

Table VII shows the number of sessions held, and the number of first visits and re-visits made by mothers, infants, and children.

TABLE M VII.

Centre.	MOTHERS.			Post-natal and others.		CHILDREN.			
	No. of Sessions.	Ante-natal. 1st Visit.	Total.	1st Visit	Total.	Under 1 year. 1st Visit.	Total.	Over 1 year. 1st Visit.	Total.
Baillieston, - - -	23	12	16	13	19	104	204	82	239
Bellshill, - - -	47	35	49	86	151	190	529	219	608
Blantyre, - - -	47	93	132	150	251	152	340	167	299
Cadzow, - - -	8	2	2	6	7	2	3	10	14
Cambuslang, - - -	47	104	188	193	334	171	386	241	392
Chapelhall, - - -	11	1	1	18	26	21	58	31	80
Larkhall, - - -	43	68	107	108	170	178	468	192	375
Newarthill, - - -	42	7	9	30	45	66	180	72	197
Newmains, - - -	47	41	67	46	121	95	308	131	268
New Stevenston, - - -	23	14	17	25	33	61	127	77	147
Shotts, - - -	48	59	123	67	162	149	373	178	285
Tannochside, - - -	21	16	22	25	45	59	132	57	142
Uddingston, - - -	23	16	26	15	19	72	179	82	205
		468	759	782	1,383	1,320	3,287	1,539	3,251

Infants and Children.—Table M VIII shows the illness recorded in the case of infants and children, and it should be noted that the figures refer to the number of cases of each disease for which the

patient thought it necessary to consult the doctor. These figures do not correspond with the total attendances, since repeated consultations for the same disease represent only one illness, nor, on the other hand, do they correspond with the first attendances, as a child may have had a re-visit for a new ailment, in which event both illnesses were recorded.

TABLE M VIII.
ILLNESSES OF INFANTS AND CHILDREN ATTENDING CENTRES.

CENTRE	Gastro-Intestinal.	Intestinal Worms.	Respiratory.	Tuberculosis.	Skin.	Ear, Nose, and Throat.	Eyes.	Teeth.	Rickets.	Hernia.	Phimosis.	Anal Prolapse.	Club foot.	Infantile Paresis.	Injury to Limb.	Cleft Palate.	Others.	TOTAL
Baillieston, -	92	2	42	—	19	10	5	1	7	4	2	—	—	2	—	—	—	186
Bellshill, -	208	3	69	—	44	15	23	4	28	6	3	1	2	4	1	—	11	422
Blantyre, -	125	6	39	2	29	14	14	14	42	16	5	1	—	2	2	—	71	382
Cadzow, -	4	—	—	1	1	3	—	3	2	—	—	—	—	—	—	—	—	14
Cambuslang, -	114	9	43	2	65	26	30	17	96	14	9	1	—	1	2	1	55	485
Chapelhall, -	24	—	11	—	2	2	—	2	5	—	1	—	—	1	—	—	—	48
Larkhall, -	166	7	49	—	48	37	18	9	16	17	10	3	3	1	3	1	—	388
Newarthill, -	72	1	19	4	14	6	5	3	8	3	8	—	—	1	2	—	9	155
Newmains, -	118	4	18	3	21	27	13	12	10	5	2	1	3	4	2	—	23	266
New Stevenston, -	56	7	25	1	21	11	8	—	11	3	—	1	—	—	—	—	—	144
Shotts, -	136	7	16	10	38	39	38	4	21	8	4	—	2	2	2	1	—	328
Tannochside, -	51	—	19	1	20	10	6	2	4	5	1	—	—	—	—	—	4	123
Uddingston, -	70	1	28	1	18	18	5	10	12	4	4	—	—	—	—	—	3	174
	1,236	47	378	25	340	218	165	81	262	85	49	8	10	18	14	3	176	3,115

Ante-Natal Cases.—During the year, 468 ante-natal cases (representing 519 conditions) were seen at the Child Welfare Centres. These are shown in the following table according to Centres and the conditions found:—

TABLE M IX.
ANTE-NATAL CASES.

Centre.	Normal.	Abnormal Presentation.	Contracted Pelvis.	Albuminuria.	Hyperemesis.	Hæmorrhage and Threatened Abortion.	Hydræmnios.	Leucorrhœa.	Varicose Veins and Hæmorrhoids.	Respiratory.	Cardiac.	Gastro Intestinal.	Dental Caries.	Abdominal Pain.	Previous Abnormality.	Debility.	Others.	Total.
Baillieston,	-	-	-	1	1	-	-	-	1	1	-	-	-	-	-	3	2	9
Bellshill,	-	-	-	5	-	-	-	1	3	-	-	-	3	-	-	8	3	37
Blantyre,	-	2	2	14	6	7	3	5	8	4	-	5	10	4	2	6	12	123
Cadzow,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Cambuslang,	-	2	1	12	6	5	1	3	9	5	-	3	10	10	-	11	12	130
Chapelhall,	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Larkhall,	-	-	-	6	4	2	-	-	5	-	3	8	2	-	-	4	2	68
Newarthill,	-	-	-	3	-	-	-	-	2	-	-	-	-	-	-	-	-	7
Newmains,	-	-	-	2	-	-	-	-	4	1	-	2	8	-	-	-	5	41
New Stevenston,	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	3	-	14
Shotts,	-	-	-	2	1	-	-	1	4	1	-	3	4	-	-	6	-	55
Tannochside,	-	-	-	2	-	1	-	-	3	-	-	1	-	-	-	3	-	16
Uddingston,	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	3	-	16
	197	4	3	53	18	15	4	10	40	13	3	23	37	14	2	47	36	519

Of the above cases, 229 were referred for treatment to the ante-natal wards; 71 were referred to the family doctors; and the remaining 168 received treatment at the Clinics.

Post-Natal and Other Consultations.—Table M X shows the post-natal gynæcological and other consultations which are made at the various Centres:—

TABLE M X.
POST-NATAL AND OTHER CONSULTATIONS.

CENTRE.	POST-NATAL.										GYNÆCOLOGICAL.							OTHERS.									
	Uterine Displacement.	Cervical Tear.	Leucorrhœa.	Disease of the Breast.	Varicose Veins.	Albuminuria.	Gastro-Intestinal.	Respiratory.	Dental.	Anæmia and Debility.	Others.	Total.	Uterine Displacement.	Cervical Tear.	Endometritis.	Disorders of Menstruation.	Ovarian Pain.	Others.	Total.	Respiratory.	Gastro-Intestinal.	Cystitis and Nephritis.	Dental.	Anæmia and Debility.	Others.	Total.	
Baillieston, -	-	-	-	1	1	-	-	-	-	6	1	8	-	-	-	1	-	-	-	1	-	-	-	2	-	2	4
Bellshill, -	-	-	3	5	2	-	2	3	5	30	3	53	-	-	-	4	-	3	7	1	3	-	14	3	7	28	
Blantyre, -	-	-	3	7	2	6	5	-	57	64	6	150	2	3	4	5	1	-	-	15	3	4	-	-	10	17	
Cadzow, -	-	-	1	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	4	-	-	4	
Cambuslang, -	1	2	5	2	2	10	1	3	105	58	6	195	3	5	2	3	8	2	23	-	4	-	-	1	16	21	
Chapelhall, -	-	-	-	1	-	-	-	-	3	-	2	6	-	-	-	-	-	1	1	1	2	1	-	2	2	4	11
Larkhall, -	-	-	7	2	-	1	1	1	24	21	13	70	2	-	-	3	-	-	5	1	2	2	8	9	11	33	
Newarthill, -	-	-	-	-	-	-	1	1	-	12	-	14	-	-	-	1	-	2	3	-	-	-	1	2	3	6	
Newmains, -	-	-	-	-	-	-	1	1	5	15	8	30	1	7	-	7	-	1	16	-	-	-	-	-	-	-	
New Stevenston, -	-	-	-	-	-	1	-	2	-	13	3	19	-	-	-	-	1	-	1	1	-	-	-	2	2	5	
Shotts, -	-	-	-	-	-	7	2	1	5	28	10	53	3	1	-	9	-	1	14	-	-	-	-	-	-	-	
Tannochside, -	-	-	-	-	-	-	-	-	1	14	2	17	-	-	-	1	1	-	2	1	2	-	3	-	3	9	
Uddingston, -	-	-	-	3	-	-	-	-	5	11	-	19	2	-	-	2	-	-	4	-	-	-	9	2	1	12	
	1	2	19	21	6	25	13	12	211	272	54	636	13	16	6	36	11	10	92	9	16	2	43	21	59	150	

Treatment at Child Welfare Centres.

This further development of the Centres is only possible at those Clinics which are held in premises belonging to the Local Authority, and while something has been attempted during the year the scheme cannot be fully developed until the staffing arrangements have been completed. The following statements give a record of the work carried out at Cambuslang, Blantyre, and Shotts, and also at the out-patient department of Calderbank House—

MINOR AILMENTS.

Mothers :

	Cambuslang.	Blantyre.	Shotts.
Anæmia and Debility, -	55	5	8
Skin Disease, - -	5	—	2
Mastitis, - - -	—	1	—
Leucorrhœa, - -	—	—	1
	<u>60</u>	<u>6</u>	<u>11</u>
Re-attendances, - -	507	30	83

Children :

	Cambuslang.	Blantyre.	Shotts.
Eyes, - - - -	6	5	8
Skin, - - - -	18	8	20
Hernia, - - -	1	—	—
Ears, - - - -	5	1	9
Threadworms, - -	—	1	6
Stomatitis, - - -	—	—	1
Cervical Adenitis, -	—	—	1
	<u>30</u>	<u>15</u>	<u>45</u>
Re-attendances, . -	216	68	358

ARTIFICIAL SUNLIGHT TREATMENT.

	<i>Mothers</i>		<i>Children</i>	
	New Cases.	Re-attendances.	New Cases.	Re-attendances.
Cambuslang, - - -	7	98	90	884
Shotts, - - - -	6	120	23	357
Calderbank House, -	7	229	33	1,050
	<u>20</u>	<u>447</u>	<u>146</u>	<u>2,291</u>

TREATMENT OF SQUINT.

The work in connection with the treatment of squint cases is summarised in the following statement:—

Cases Examined at	First Cases.	Spectacles Prescribed.	Re-examined.
Bellshill, ...	18	16	18
Blantyre, ...	13	11	6
Cambuslang, ...	11	10	1
Shotts, ...	23	21	22
	65	58	47

DENTAL TREATMENT—MOTHERS AND CHILDREN.

During the year 319 mothers and 70 children were recommended for dental treatment, and of these 224 mothers and 54 children attended the dental surgeons appointed by the Local Authority.

Centre.	MOTHERS.		CHILDREN.	
	Recommended for Treatment.	Attended Dentist.	Recommended for Treatment.	Attended Dentist.
Baillieston, ...	2	2	—	—
Bellshill, ...	20	10	4	1
Blantyre, ...	70	44	12	9
Cadzow, ...	6	4	3	3
Cambuslang, ...	116	93	16	12
Chapelhall, ..	4	2	2	1
Larkhall, ...	42	32	8	7
Newarthill, ...	1	1	2	1
Newmains, ...	20	12	9	7
New Stevenston,	—	—	—	—
Shotts, ...	4	2	6	5
Tannochside, ...	11	8	3	3
Uddingston, ...	15	12	4	4
From Outlying Districts, ...	8	2	1	1
	319	224	70	54

Ear, Nose, and Throat Ailments.

The work done at the Ear, Nose, and Throat Clinic, held at the County Hospital, Motherwell, is summarised below:—

No. of Sessions.	No. of 1st Visits.	No. of Re-visits.	Operations recommended.	Operations performed.
20	107	85	57	52

The operations performed were as follows:—

Tonsils and Adenoids, ...	...	...	...	51
Turbinectomy, ...	...	...	...	1
Total, ...	...	...	...	<u>52</u>

The difference in the number of operations recommended and operations performed is made up as follows:—

Removed from district, ...	...	...	...	1
Awaiting operation at the end of the year, ...	...	...	...	4
Total, ...	...	...	...	<u>5</u>

In addition—

2 patients received special examination and treatment.

2 patents were admitted directly to Calderbank House for operation:—Tonsils and adenoids, 1; incision of membrana tympani, 1.

3 of the cases re-visiting the Ear, Nose, and Throat Clinic were recommended for, and received, operation as follows:—Tonsils and adenoids, 1; incision of membrana tympani, 1; anthum, 1.

The 5 patients awaiting operation at the end of 1927 were dealt with thus:—Tonsils and adenoids, 2; incision of membrana tympani, 1; unfit for operation, 1; receiving general practitioner treatment first, 1.

Attendances at the Clinic were recommended from the following sources :—

Baillieston Child Welfare Centre,	...	...	7
Bellshill do.,	...	...	5
Blantyre do.,	...	...	3
Cambuslang do.,	...	...	3
Larkhall do.,	...	...	19
Newarthill do.,	...	...	6
Newmains do.,	...	...	9
New Stevenston, do.,	...	...	12
Shotts, do.,	...	...	7
Tannochside, do.,	...	...	6
Uddingston, do.,	...	...	9
Public Health Staff,	...	...	14
Own accord,	...	...	1
Larkhall Dispensary,	...	...	1
Medical Practitioners,	...	...	3
Upper Ward	...	...	2
<hr/>			
107			
<hr/>			

Miscellaneous :—

Six patients attended the Ear, Nose, and Throat Clinic in error, four of whom were referred to the Education Authority for operation.

Educational Work.

The following table shows the number of demonstrations and lectures which were given at the various Centres during the year :—

TABLE M XI.

DEMONSTRATIONS.			LECTURES.	
	Cookery.	Dress-making.		
Baillieston, -	11	11	<hr/>	
Bellshill, -	10	24	Hygiene of pregnancy.	Measles.
			Broncho-pneumonia.	Hints to
			mothers (2).	Infantile feeding.

DEMONSTRATIONS, Cookery, Dress- making.				LECTURES.
Blantyre, -	11	11		Artificial feeding of children under 1 year. Artificial sunlight. Ear, nose and throat, eyes and teeth. Skin diseases in children. Rickets.
Cambuslang, -	9	16		Artificial feeding of children under 1 year. Artificial sunlight. Ear, nose and throat, eyes and teeth. Cleanliness and bathing. Skin diseases in children. Rickets (2). Ophthalmia neonatorum. Scarlet fever. Aims of a Child Welfare Centre. Scabies.
Larkhall, -	9	10		—
Newarthill, -	10	11		—
Newmains, -	12	12		Breast feeding (2). Bottle feeding and patent foods. The mentally defective child. Measles. Summer diarrhoea. Ophthalmia neonatorum. Rickets.
New Stevenston, -	11	12		—
Shotts, - -	11	20		Breast feeding. Bottle feeding. Convulsions in infancy. The mentally defective child. Measles. Summer diarrhoea. Ophthalmia neonatorum. Scabies.
Tannochside, -	9	11		—
Uddingston, -	10	11		—

Necessitous Cases.

The numbers dealt with monthly and the annual figures and estimated expenditure for each Centre are shown in Table M XII below :—

TABLE M XII.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
744	697	714	751	796	780	801	809	770	665	570	626	8,723

	No. of Cases.	Amount.		No. of Cases.	Amount.
Airdrie, ...	789	£412 6 4	Newarthill, ...	493	£231 16 11
Baillieston, ...	694	328 14 1	Newmains, ...	251	110 10 7
Bellshill, ...	1,430	705 7 8	New Stevenston, ...	382	183 13 1
Blantyre, ...	982	472 18 7	Shotts, ...	309	131 2 1
Cadzow, ...	163	75 8 8	Strathaven, ...	119	59 3 4
Cambuslang, ...	330	155 12 4	Tannochside, ...	625	299 17 6
Chapelhall, ...	147	67 6 1	Uddingston, ...	886	429 6 1
Larkhall, ...	1,123	538 19 8			
	<u>5,658</u>	<u>£2,756 13 5</u>		<u>3,065</u>	<u>£1,445 9 7</u>
Total Cases, ...	...	...		8,723	
Total Expenditure, ...	...	...		£4,202 3s.	

For purposes of comparison the expenditure since 1920 is shown below :—

Year.	No. of Cases.	Expenditure.
1920	956	£860 0 0
*1921	53,996	37,624 8 3
1922	14,961	9,417 0 0
1923	5,582	3,033 17 2
1924	4,432	2,570 18 9
1925	8,281	4,476 17 3
*1926	67,625	18,653 9 8
1927	15,350	7,652 12 2
1928	8,723	4,202 3 0

* Years of industrial depression.

Boarded-out Children.—On 6th May and 7th September the two children boarded-out by the Local Authority had reached the age of five years and were taken over by the parents in one instance and by the Parish Council in the other.

Midwives (Scotland) Acts, 1915 and 1927.

Practising Midwives.—During the year 194 certified midwives (147 resident within and 47 resident outwith the Middle Ward) notified their intention to practise—a decrease of 13 compared with the number last year.

The qualifications of the practising midwives are as follows:—

	1923	1924	1925	1926	1927	1928
Certificate of the Central Midwives Board (Scotland),	50	54	53	53	54	48
Certificate of the Central Midwives Board (England),	2	2	3	4	4	4
Trained and certified by the Royal Maternity Hospital (Glasgow), ...	7	6	6	6	6	7
Trained and certified by the Royal Maternity Hospital (Edinburgh),...	1	1	1	1	1	1
Trained and certified by the Rotunda Hospital (Dublin),... ..	—	—	—	—	—	1
In <i>bona-fide</i> practice and certified under the Act,	171	167	159	153	142	133
	231	230	222	217	207	194

The above table shows that there are now 61 trained midwives, and 133 uncertificated midwives, as compared with 65 and 142 respectively in 1927.

The number of practising midwives according to parish of residence is as follows:—

Parish.	Number of Midwives.	Parish.	Number of Midwives.
Avondale,	3	Dalserf,	20
East Kilbride,	—	Dalziel,	—
Glassford,	2	Hamilton,	2
Stonehouse,	5	New Monkland,	13
Blantyre,	8	Old Monkland,	13
Bothwell,	43	Shotts,	9
Cambuslang,	11	Midwives resident outwith District,	49
Cambusnethan,	16		
	88		106
	<u>Total, 194</u>		

Change of Address.—The changes of address of 20 midwives were reported to the Board; 8 left the District, 3 of the latter going abroad.

Deaths.—Two midwives died during the year, the numbers on the Roll being 1,667 and 5,772.

Inspection of Midwives.—The routine inspections of midwives resident in the District numbered 577. In addition, 201 special inspections were made on account of non-compliance with the rules, while a few were made for tuitional purposes. A number of midwives were specially interviewed at the local Child Welfare Centres by the Medical Officers of the Districts. In connection with the possession of midwifery outfits, 3 midwives were without bags and linings; 1 did not possess washable uniforms and aprons; 2 were without nail brushes; 3 without scissors; and 16 had not supplied themselves with thermometers. The reports of the Inspectors showed that registers in 4 instances and temperature charts in 26 instances were either kept incorrectly or no attempt was made to keep them at all.

Disciplinary Cases.—During the year it was considered desirable to report two midwives to the Central Midwives Board, one for continued failure to send in medical assistance forms, and the other for allowing an unqualified person to act as a substitute. The Board considered the circumstances of each case and while, in this instance, admonishing the women concerned warned them that a future contravention would necessitate their appearance before the Board to answer any charges preferred.

Four midwives were interviewed by the Medical Officer of Health for failure to comply with the Regulations, and in 26 instances letters were issued on account of minor offences.

Attendance at Confinement.—The number of births notified as having been attended by certified midwives was 2,323, which represents 41.1 per cent.

Attendance by Unqualified Persons.—In 61 instances a handy-woman was found to have been in attendance, and in 40 the information supplied in the special reports made it clear that no further action was necessary as the attendance had been given in genuine emergency and skilled assistance called at the earliest opportunity. There being apparent irregularity in the remaining 21 cases, the persons involved were interviewed by the Medical Officer of Health

and requested to explain the circumstances under which they had attended. A satisfactory explanation of *bona-fide* emergency was elicited in the majority of instances and in a few the women admitted that they had been in error but pleaded ignorance of the Statute. Two handywomen were apparently under the impression that they were able to fulfil midwifery duties without qualified assistance. Without exception the persons interviewed gave an undertaking to desist from performing unauthorised midwifery practice, and several of them voluntarily agreed to give up practising midwifery in any capacity. It is felt that such interviews will assist greatly in eliminating the habitual handywoman and will reassure the qualified midwives that their practice is being safe-guarded by the Local Supervising Authority.

Infantile Deaths.—The total number of infantile deaths was 491. In 130 instances the deaths occurred in infants during the first ten days, and 31 of these were in the practice of certified midwives. The causes of death in the latter were as follows:—Prematurity, 75; debility, 30; injury at birth, 6; congenital heart, 3; congenital malformation, 7; infantile convulsion, 1; atelectasis, 4; diarrhœa, 1; pneumonia, 1; violence, 1; and ill-defined diseases, 1.

Ophthalmia Neonatorum.—There were 110 notified cases of ophthalmia, 28 of these occurring in the practice of midwives. In addition 87 cases of discharging eyes were detected by the Health Visiting Staff, and 28 of these occurred among midwives' cases.

Puerperal Sepsis.—The total number of cases notified was 106, and 26 of these occurred in the practice of midwives. There were 25 deaths from this disease, and 5 of these related to midwives' cases.

Still-Births.—The total number of still-births was 223, 45 of these being midwives' cases.

Examination of Urine.—142 specimens of urine were sent to the County Laboratory for examination by 13 certified midwives, 62 giving a positive result. At the Child Welfare Centres 241 cases were submitted by certified midwives, and of these 45 proved positive.

Liability to be a source of Infection.—24 notifications were received from midwives as follows:—Scarlet fever, 4; puerperal fever, 12; diphtheria, 2; septicæmia, 3; pleurisy, 1; measles, 1; rise in temperature, 1.

Form of Having Laid Out a Dead Body.—8 notifications were received, 1 being for mothers, and 7 for infants.

Notification of Death.—4 notifications of the deaths of infants were received.

Provision of Certified Midwives in Necessitous Cases.—The cost of the attendance of a certified midwife was met by the Local Authority in 10 cases, the fee paid being 25s. per case.

Compensatory Fees.—In 25 instances where a midwife called a medical practitioner to her assistance, the patient was removed to hospital, and in each case a compensatory fee of 10s. was paid to the midwife.

Medical Assistance.—Medical aid was sought by midwives in 548 instances, an increase of 44 compared with the previous year. This represents 20·5 per cent. of the births attended by certified midwives. The conditions for which assistance was obtained are detailed in Table M XIV.

Payment of Doctors' Claims.—The claims sent in by medical practitioners under Section 22 of the 1915 Act, as amended by Section 4 of the 1927 Act, numbered 381, representing 69·5 per cent. of the cases to which they had been called and amounted to £502 16s. £32 2s. 6d., or 7 per cent. of the total expenditure, was recovered. In the following Table there is set forth the number of accounts submitted since the Act came into operation, together with the total sums recovered :—

TABLE M XIII.

Year	Births attended by Midwives	Medical Assistance Forms received	Per centage of Midwives' cases requiring Medical Assistance	Doctors' Claims		Amount of Account			Amount recovered			Per cent.
				No.	per cent.	£	s.	d.	£	s.	d.	
1917	2,486	170	6·8	5	2·9	4	9	0	2	9	6	55
1918	2,789	158	5·6	10	6·3	6	14	0	2	3	6	32
1919	2,794	167	5·9	14	8·3	10	5	0	2	0	0	19
1920	3,188	146	4·5	10	6·8	6	0	0	2	7	0	39
1921	2,905	189	6·5	12	6·3	10	0	0	—	—	—	—
1922	3,104	228	7·3	33	14·4	38	13	3	1	0	0	3
1923	2,856	313	10·9	51	16·2	61	17	6	3	1	0	4
1924	2,730	465	17·0	121	26·0	139	3	6	18	12	6	13
1925	2,659	492	18·5	196	39·8	237	5	3	17	8	0	7
1926	2,346	620	26·4	255	41·1	379	3	3	15	1	9	4
1927	2,195	504	22·9	391	77·5	501	15	9	34	0	0	6
1928	2,124	548	25·8	381	69·5	502	16	0	32	2	6	7
						£1,898	2	6	£133	5	9	7

TABLE M XIV.

Records of Sending for Medical Assistance Classified according to Parish and the Conditions requiring Medical Aid. The Totals are also shown for each Year since 1924.

PARISH.																
Reasons for Medical Assistance.	Avondale.	Blantyre.	Bothwell.	Cambuslang.	Cambusnethan.	Dalserf.	Dalziel.	Hamilton.	New Monkland.	Old Monkland.	Shotts.	Total during				
												1928	1927	1926	1925	1924
<i>Mother:—</i>																
Prolonged Labour, -	—	54	44	14	—	18	3	11	28	8	1	181	147	173	135	142
Contracted Pelvis, -	1	—	10	—	—	1	—	—	—	—	—	12	4	12	3	6
Uterine Inertia, -	—	—	21	—	1	—	—	—	—	1	—	23	34	58	29	13
Abnormal Presentation, -	—	6	13	8	—	2	—	—	1	4	1	35	34	57	48	36
Placenta Prævia, -	—	—	1	1	—	—	—	—	—	1	—	3	—	4	3	1
Ante-Partum Hæmorrhage, -	—	8	12	2	—	—	—	—	—	—	—	22	18	25	15	14
Post-Partum Hæmorrhage, -	—	1	1	2	—	—	—	—	—	—	—	4	12	7	7	7
Hæmorrhage (unqualified), -	—	2	2	3	—	2	—	—	—	—	—	9	—	—	—	—
Retained Placenta, -	—	6	14	2	—	1	—	—	—	—	—	23	13	20	19	24
Hydramnios, -	—	—	—	1	—	1	—	—	—	—	—	2	—	1	1	1
Eclampsia and convulsion, -	—	1	1	—	—	—	—	1	—	—	—	3	5	5	3	2
Albuminuria, -	—	2	1	10	—	—	—	—	—	—	—	13	16	17	16	18
Torn Perineum, -	—	31	22	13	—	4	—	3	4	6	1	84	73	81	63	51
Abortion (actual or threatened), -	—	8	1	2	—	—	—	—	—	1	—	12	8	12	5	7
Prolapse Uterus, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pyrexia, -	—	5	1	5	—	—	—	—	—	2	—	13	20	9	8	18
Puerperal Sepsis, -	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
Phlebitis, -	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	1
Influenza, -	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Debility and extreme weakness, -	—	12	7	2	—	3	—	—	3	—	—	27	15	12	1	6
Varicose Veins, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Mastitis, -	—	1	—	1	—	—	—	—	—	—	—	2	—	—	—	—
Œdema, -	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Other defined causes, -	—	4	4	3	—	—	—	—	—	1	—	12	21	21	36	27
Undefined causes, -	—	4	5	—	—	—	—	—	1	—	—	10	15	17	—	—
<i>Child:—</i>																
Still-Birth, -	—	4	1	3	—	2	—	—	—	—	—	10	14	17	17	15
Premature Child, -	—	11	1	1	—	—	—	—	—	1	—	14	17	20	23	23
Ophthalmia Neonatorum, -	—	—	2	1	—	—	—	—	—	—	—	3	11	23	33	26
Discharging Eyes, -	—	2	5	5	—	—	—	—	—	—	—	12	2	—	—	—
Congenital Malformation, -	—	—	—	—	—	—	—	—	—	—	—	—	2	3	3	3
Anencephalus, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Spina Bifida, -	—	—	—	2	—	—	—	—	—	—	—	2	—	—	—	2
Hare Lip, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Convulsions, -	—	—	—	1	—	—	—	—	—	—	—	1	—	1	—	2
Debility and extreme weakness, -	—	1	1	—	—	—	—	—	1	—	—	3	7	4	4	—
Hydrocephalus, -	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—
Prolapse of Cord, -	—	—	—	—	—	2	—	—	—	—	—	2	2	4	—	3
Skin Condition, -	—	3	—	—	—	—	—	—	—	—	—	3	—	—	1	—
Death of Infant, -	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Other Causes, -	—	4	1	1	—	—	—	—	—	—	—	6	9	14	9	13
	1	172	171	83	1	36	3	15	38	25	3	548	504	620	492	465

The Scale of Fees payable to doctors called in emergency was amended by the Scottish Board of Health during the year. The revised regulations are as follows:—

Scale of Fees fixed by the Scottish Board of Health for Doctors called in by Midwives in accordance with Section 22 (1) of the Midwives (Scotland) Act, 1915, and for Doctors attending women in childbirth in terms of Section 5 of the Midwives and Maternity Homes (Scotland) Act, 1927.

-
1. Fee for all attendances of a doctor during parturition, including all subsequent visits during the first ten days, inclusive of the day of birth—£2 2s.
 2. Fee for attendance of a second doctor to give an anæsthetic, whether on account of abortion or miscarriage, at parturition or subsequently—£1 1s.
 3. Fee for suturing the perineum, for the removal of adherent or retained placenta, for exploration of the uterus, for the treatment of post-partum hæmorrhage, or for any operative emergency arising directly from parturition, including all subsequent visits during the first ten days, inclusive of the day of birth—£1 1s.

This fee is not to be payable when the fee under 1 is payable.

4. Fee for attendance at, or in connection with, an abortion or miscarriage, including all subsequent visits during the ten days from and including the first visit—£1 1s.
5. Fee for visits to mother and/or child, not included under 1 to 4:—
 - First Visit—Day (9 a.m. to 8 p.m.), 5s.
Night (8 p.m. to 9 a.m.), 10s.
 - Subsequent Visit—Day (9 a.m. to 8 p.m.), 3s. 6d.
Night (8 p.m. to 9 a.m.), 7s. 6d.

6. The usual mileage fee of the district to be paid for all attendances under 1 to 5 of this scale.

7. No fee shall be payable by the Local Supervising Authority:

(1) Where the doctor has agreed to attend the patient under arrangement made by or on behalf of the patient or by any Club, Medical Institute, or other Association of which the patient or her husband is a member, or when the doctor is under obligation to give the treatment to the patient under the National Health Insurance Act, 1924;

(2) where the doctor receives, or agrees to receive, a fee from the patient or her representative;

- (3) in respect of any services performed by the doctor on any day later than the tenth day from the date of his first attendance, unless he has reported to the local supervising authority that he considers, for reasons stated by him, that his further attendance is necessary, or in respect of any services performed by the doctor after the expiry of four weeks from the day of birth.
8. It is a condition of the payment of these fees that, except in cases under Section 5 of the Midwives and Maternity Homes (Scotland) Act, 1927, the medical practitioner shall have been called to the patient in the manner prescribed by the Rules of the Central Midwives Board for Scotland, and that he shall state in his claim to the local supervising authority the nature of the emergency, and shall submit his claim within two months from the date of the last visit covered by the scale.
- (9) The above Scale will take the place of that intimated in the Circular of the Central Midwives Board for Scotland, dated 20th December, 1922, and will come into operation as from the date hereof.

Section 22 of the principle Act was amended by Section 4 of the Midwives and Maternity Homes (Scotland) Act, 1927, to require that a practitioner shall submit his claim within two months of the date of the last visit covered by the Scale and the Local Supervising Authority determined that this provision would come into force as from 20th June, 1928, the date of issue of the revised Scale of Fees. Medical practitioners were circularised on two occasions and advised that accounts must be timeously rendered and a printed note of the new requirements was added to the claim form, but in spite of these precautions several accounts had to be cancelled. In such cases the doctors were informed that the Local Authority could not depart from their recorded decision, and, in course of time, it is hoped that the prescribed period will be adhered to strictly.

The Scottish Board of Health recommended that Local Supervising Authorities should, on receipt of a doctor's claim, forward a copy to the husband or guardian together with a request that if he was not prepared to refund the amount in full he should furnish such evidence as would enable the Local Authority to determine whether proceedings to recover the fee should be taken under Section 22 (4) of the Midwives (Scotland) Act, 1915. This procedure had already been in force in the Middle Ward District for some considerable time, and was introduced on the grounds that the onus of proof

of poverty should rest with the person who desired to be exempted from refunding the fee. At the same time it relieved the health visitor of the unpleasant duty of investigating the financial circumstances of the home and committed the person giving the information to a written statement of the family income.

One or two points emerge from our experience of the amended Scale of Fees which appear to be worth recording.

The fee for attendance at a confinement was raised from £1 17s. 6d., to £2 2s., because the new amount included all subsequent visits during the first ten days instead of one subsequent visit, as required by the original scale. In consideration of the fact that all these confinements are abnormal, it appears to us desirable that a minimum number of visits during the puerperium—say, six—should have been specified in the new Scale.

Conversely the unlimited liability of the Local Authority to pay fees under paragraph 5 might easily be abused and in this case a maximum number of visits might have been prescribed. In this connection correspondence took place with the Department of Health, in which it was suggested that the emergency was met when a doctor had responded to the summons of the midwife, and that subsequent visits made at the doctor's instigation and not at the request of the midwife could not be regarded as visits of emergency under the Midwives Act. It was admitted that the further attendance of a practitioner might be paid for by the Local Authority in necessitous cases under their Maternity and Child Welfare Scheme. The Department disagreed with this point of view, however, and said that the responsibility for treatment until the emergency had passed rested on the doctor once he had been called by the midwife, and that the number of subsequent visits was in the discretion of the practitioner.

We have had occasion to make use of paragraph 8, which states that it is a condition of the payment of fees that the medical practitioner shall have been called to the patient in the manner prescribed by the Rules of the Central Midwives Board.

The Scottish Board of Health were consulted in connection with several cases where a medical practitioner had been summoned to a woman in labour or during her pregnancy by the relatives of the patient and had informed the messenger that he would not attend until a midwife had been called and his services requested by means

of the official emergency form. This procedure had been adopted even where the practitioner was aware that an abnormal condition of pregnancy or labour already existed. In one case where the husband requested the doctor to attend on account of hæmorrhage and the latter had insisted on a midwife being called in first, the practitioner's account for payment was cancelled. The Board agreed that the practice referred to was an abuse of the Midwives Act and upheld the cancelling of the account in the special case referred to.

Intention to Practise.—A list of the midwives who notified their intention to practise during the year was forwarded to the Board on 13th February, 1929.

County Maternity Hospital, Bellshill.

REPORT BY THE PHYSICIAN-SUPERINTENDENT,
HENRY JAMES THOMSON, M.D.

	Adults.	Babies.
Number of patients remaining in Hospital on 31/12/27, - - - - -	32	20
Number of patients admitted, - - -	1,101	668
Number of patients discharged, - - -	1,098	642
Leaving in residence, - - - - -	25	13
Number of deaths, - - - - -	10	33

The still-births for the year numbered 71.

TABLE M I.

	In Residence 1/1/28	Admitted.	Discharged.	Died.	In Residence 31/12/28
Ante-natal, -	6	183	179	2	8
Confinements,	24	698	704	3	15
Abortions, -	2	125	124	1	2
Post-natal, -	—	32	30	2	—
Gynæcological,	—	60	59	1	—
Others, . -	—	3	2	1	—
	32	1,101	1,098	10	25

Infants born in Hospital.—

In Residence 1/1/28	Infants born. Alive.	Still-born.	Discharged. Well.	Died.	In Residence 31/12/28
20	646	71	621	32	13

Babies admitted with mother.—

In Residence 1/1/28	Admitted.	Discharged. Well.	Died.	In Residence 31/12/28
—	22	21	1	—

TABLE M II.

		Condition.				
	Number of Cases discharged.	Well.	Improved.	I. S. Q.	Worse.	Died.
Ante-natal,	- 181	80	25	74	—	2
Confinement,	- 707	682	2	2	18	3
Abortion, -	- 125	124	—	—	—	1
Gynæcological,	- 60	45	1	12	1	1
Post-natal,	- 32	28	2	—	—	2
Others, -	- 3	2	—	—	—	1
	1,108	961	30	88	19	10

The following table shows the districts from which the patients were admitted :—

TABLE M III.

MIDDLE WARD,				...	...	...	966
Avondale,	...	...	11	Cambusnethan,	...	...	29
East Kilbride,	...	...	29	Dalserf, ...	...	...	71
Glasford,	...	...	10	Dalziel, ...	...	...	71
Stonehouse,	...	...	17	Hamilton,	...	...	10
Blantyre,	...	...	149	New Monkland,	...	...	72
Bothwell,	...	...	301	Old Monkland, ...	...	...	28
Cambuslang,	...	...	129	Shotts, ...	...	...	39
LOWER WARD, ...	...	...	51	UPPER WARD, ...	...	...	61
LANARK BURGH,	...	...	29	RUTHERGLEN BURGH, ...	...	...	1
Total,				...	...	...	1,108

TABLE M IV.

ANTE-NATAL CASES.

Reason for admission.—

Cardiac disease, - - - -	3	Bladder fistula, - - - -	1
False labour, - - - -	59	Bony tumour of pelvis, - - - -	1
General debility, - - - -	3	Bronchitis, - - - -	1
Hæmoptysis, - - - -	1	Cystitis, - - - -	1
<i>Hæmorrhages—</i>		Ectopic gestation and salpingitis, -	1
External accidental hæmorrhage, - - - -	10	Fibroid tumour, - - - -	2
Concealed hæmorrhage with toxæmia of pregnancy, -	1	Hernia (double inguinal), - - - -	1
Placenta prævia lateralis, -	1	Hernia (umbilical), - - - -	1
Hydramnios, - - - -	1	Incarceration of uterus, - - - -	2
<i>Nervous Diseases—</i>		Lumbar pain, - - - -	1
Chorea, - - - -	5	Observation, - - - -	1
Phlebitis, - - - -	1	Oophoritis, - - - -	1
<i>Toxæmias of Pregnancy—</i>		Ovarian cyst, - - - -	1
Albuminuria, - - - -	24	Pelvic pain, - - - -	3
Albuminuria with other symptoms of toxæmia, - - - -	4		
Œdema, - - - -	2		
Puerperal eclampsia, - - - -	1		
Pernicious vomiting, - - - -	32		
Pyelitis, - - - -	11		
Negative, - - - -	4		

Results.—

Discharged well,	80
Discharged improved,	25
Discharged I.S.Q.,	74
Died,	2
	<hr/>
	181
	<hr/>

TABLE M V.

ABORTIONS AND UTERINE HÆMORRHAGES.

There were 125 cases discharged from hospital which had been admitted as suffering from symptoms of uterine hæmorrhage, and on examination the undernoted conditions were found to be present:—

Threatened,	11
Inevitable complete,	22
Inevitable incomplete,	89
Extra-uterine pregnancy,	2
Fleshy mole,	1
	<hr/>
	125
	<hr/>

Results.—Of the 11 cases of threatened abortion, 5 were discharged well, and 6 became inevitable and were curetted. Of the remaining 114 cases, 22 were complete abortions, while 90 underwent curettage, 2 cases had abdominal section performed on account of extra-uterine pregnancy.

Discharged well,	124
Died,	1
	<hr/>
	125
	<hr/>

TABLE M VI.

ABNORMAL OR COMPLICATED CONFINEMENTS.

Number of cases,				277
Abnormal presentations, - - -	39	<i>Others—</i>		
Abnormal twin births, - - -	4	Acute bronchitis, - - -	1	
<i>Hæmorrhages—</i>		Adherent placenta and mem-		
External accidental hæmorrhage, 35		branes, - - -	3	
Placenta prævia central, - - -	2	Anæmia, - - -	1	
Placenta prævia lateral, - - -	2	Bony obstruction in pelvis, -	1	
Post-partum hæmorrhage, - - -	2	Cardiac disease, - - -	1	
<i>Toxæmias of Pregnancy—</i>		Chorea, - - -	1	
Albuminuria, - - -	93	Contracted pelvis, - - -	12	
Albuminuria, with other symp-		Failed forceps before admission,	22	
toms of toxæmia, - - -	10	Insanity, - - -	2	
General toxæmia, - - -	1	Intractable diarrhœa, - - -	1	
Hæmaturia, - - -	1	Keloid scar (septic), - - -	1	
Puerperal Eclampsia, - - -	15	Mastitis, - - -	1	
Pyelitis, - - -	6	Œdema of labia, - - -	1	
Œdema of extremities, - - -	1	Parotitis, - - -	1	
		Pelvic pain, - - -	1	
		Phlebitis, - - -	1	
		Phlegmasia alba dolens, - - -	1	
		Phthisis, - - -	2	
		Pneumonia, - - -	2	
		Post-encephalitis lethargica, -	2	
		Prolapsus uteri, - - -	1	
		Syphilis, - - -	1	
				<hr/> 277 <hr/>

In the above series obstetrical operations were as follows:—

Decapitation, 2; Manual delivery, 4; Version, 5; Forceps, 28; Induction, 23; Craniotomy, 7; Cæsarean section, 6; Failure to effect delivery with forceps before admission, forceps delivery after admission, 2.

In the above series there were four cases of Puerperal Morbidity.

Results.—

Discharged Well,	255
Improved,	2
I.S.Q.,	2
Transferred to County Hospital, Motherwell,	12
Transferred to Hartwood Asylum,	1
Transferred to Bothwell Asylum,	1
Transferred to Longriggend Sanatorium,	1
Died	3

OTHER CASES OF CONFINEMENT.

(a) Normal deliveries,	423
(b) Cases delivered without medical attendance at delivery,	251
(c) Instrumental deliveries (exclusive of those under (M VI.)),	11
(d) Cases of morbidity (B.M.A. standard),	17
(e) Cases under (d) in which delivery was instrumental,...	1
(f) Deaths classified,	—
(a) Infants born (i) alive, 646; (ii) still, 71.	
(b) Number of cases of twins (i) under (a) (i) above, 14 sets;	
(ii) under (a) (ii) above, none. One set quadruplets still-born.	
Deaths of infants under eight days old, 33.	
Cases of puerperal sepsis removed from the Institution, ...	21
One case died of acute sepsis in the Institution, ...	1
One patient, who suffered from an incarcerated gravid uterus, developed an acute cystitis, and was removed to County Hospital, Motherwell,	1
	—
	23
	—

TABLE M VII.
POST-NATAL CASES.

There were treated in the Institution during the year 32 post-natal cases, and the conditions for which these were admitted were as follows :—

Adherent placenta, - - -	1	Nephritis, - - - -	1
Albuminuria, - - - -	1	Pelvic cellulitis, - - - -	1
Anaemia, bronchitis, and retained products, - - - -	1	Post-partum hæmorrhage, - - -	2
Complete perineal laceration, -	1	Retained products, - - - -	1
Eclampsia, - - - -	5	Secondary post-partum hæmorrhage, -	2
Enteritis, - - - -	1	Unsatisfactory home conditions, -	2
For confinement, but birth before arrival, - - - -	13		—
			32
			—

Results.—

Discharged well,	27
Transferred to County Hospital, Blantyre,	1
Transferred to County Hospital, Motherwell,	2
Died,	2
	—
	32
	—

There were also 3 cases classified under the heading of "Others" :—

- (1) Patient admitted with uterine bleeding, but on examination she was found not to be pregnant, neither were there any abnormal conditions of the pelvic organs. The patient's condition was due to menstruation.
- (2) A case admitted suffering from appendicitis. The attack being a mild one, it was considered inexpedient to operate; the patient was discharged well after a period of observation.
- (3) A patient admitted as an early pregnancy, but on examination she was found not to be pregnant; there was ascites, general œdema, and cardiac failure. The patient died three days after admission.

TABLE M VIII.
GYNÆCOLOGICAL CASES.

There were 59 cases discharged from hospital, 1 died and 55 received either medical or surgical treatment.

A detailed statement of the gynæcological cases receiving medical or surgical treatment is shown below :—

Endometritis—

Menorrhagia, - - - -	3	Medical treatment, - - - -	3
Metrorrhagia, - - - -	11	Curettage, - - - -	11
Leucorrhœa, - - - -	1	Medical treatment, - - - -	1
Sub-involution, - - - -	1	Medical treatment, - - - -	1
Amenorrhœa, - - - -	1	Medical treatment, - - - -	1
Sterility, - - - -	4	Curettage, - - - -	4
Perineal tear (complete), - - - -	8	Perineorrhaphy, - - - -	8
Cervical tear, - - - -	11	{ Trachelorrhaphy, - - - -	9
		{ Medical treatment, - - - -	2
Fibroid tumour of uterus, - - - -	3	{ Abdominal section and excision, - - - -	1
		{ Hysterectomy, - - - -	1
		{ Medical treatment, - - - -	1
Cystic ovary, - - - -	3	{ Oophorectomy, - - - -	4
Cystic ovary, twisted pedicle, - - - -	1		1
Sarcoma of both ovaries, - - - -	1	{ Medical treatment, - - - -	1
Prolapsus uteri, - - - -	1	Medical treatment, - - - -	1
Polypoid growth of cervix, - - - -	1	Excision, - - - -	1
Retroflexed uterus, - - - -	2	Medical treatment, - - - -	2
Retroverted uterus, - - - -	1	Ventral fixation, - - - -	1
Peri-urethral epithelial thickening, - - - -	1	Excision, - - - -	1
Bladder fistula, - - - -	1	Repair of bladder, - - - -	1
Vesico-vaginal fistula, - - - -	1	{ Discharged untreated on account of lack of bed accommodation, - - - -	5
Fibroid tumour of uterus, - - - -	1		
Anteflexion of uterus, - - - -	1		
Perineal laceration, - - - -	2		
	60		60

RECEIPTS FROM PATIENTS.

Receipts from Patients,	£821	10	5
Pupil-midwives' Premiums,	180	0	0
	<hr/>		
	£1,001	10	5

MATERNAL DEATHS.

(1) A.B.35.—Patient admitted on account of abortion, complicated with pleurisy and bronchitis. The chest condition became worse and the patient died two days later.

Cause of death: *Hæmorrhage, bronchitis, pleurisy, cardiac failure.*

(2) K.333.—Case admitted having history of being in labour for four days, and on examination the shoulder was presenting. Decapitation was immediately performed. The patient appeared to be very comfortable during the succeeding four days, after which she was seized with severe headaches, which were unrelieved by quinine, phenacetin, and morphine. Head was retracted, lumbar puncture—fluid clear—pure culture pneumococcus.

Cause of death: *Basal meningitis.*

(3) K.444.—Patient admitted in labour, delivered of a still-born child, but after delivery the patient collapsed. The patient's condition improved considerably for a few hours, but twenty-four hours after labour she suffered from a post-partum hæmorrhage and gradually became worse, dying as a result of hæmorrhage and exhaustion.

Cause of death: *Hæmorrhage and exhaustion.*

(4) G.1166.—Case of sarcoma of both ovaries in a girl of 17 years, and involving the sigmoid. There was severe hæmorrhage on account of the latter adhesions. The bleeding parts, over a large area, could only be controlled by pressure. Patient died two hours after operation.

Cause of death: *Sarcoma of ovaries.*

(5) E.1167.—Admitted after forceps delivery on account of adherent placenta and a history of having three eclamptic fits. Patient had 11 fits at intervals varying from 25 to 55 minutes. Urine contained albumin and blood. Usual treatment carried out, temperature rose to 105·8. Patient died 13 hours after admission.

Cause of death: *Puerperal eclampsia, exhaustion.*

(6) A.1332 — Patient admitted suffering from albuminuria (moderate), and was under treatment for 7 days when she complained of feeling faint; general collapse followed. On examination the tenseness of the abdomen, together with collapse, indicated concealed hæmorrhage. Patient gradually became worse and died.

Cause of death : *Concealed hæmorrhage and toxæmia.*

(7) E.1355.—Patient confined in ambulance, had 1 fit before admission and 4 fits after admission. Routine treatment carried out, patient's general condition became worse, and she died 7 hours after admission.

Cause of death : *Puerperal eclampsia, exhaustion.*

(8) K.1418.—Patient admitted with history of having been run down by a motor car a few days previously. She looked very anæmic on admission, was confined normally, but 24 hours after delivery she developed intractable diarrhœa, which persisted until she died of exhaustion. Post-mortem examination revealed the cause of death to be due to pernicious anæmia, and unconnected with accident.

Cause of death : *Pernicious anæmia.*

(9) A.1486.—Patient admitted suffering from œdema of lower extremities. Deficient secretion of urine and hæmatemesis with weakness of extremities, amounting almost to paresis. Temperature rose to 104 and pulse to 120, patient dying 24 hours after admission.

Cause of death : *General toxæmia.*

(10) O.1736.—Admitted as pregnant. On examination the patient was found not to be pregnant, but suffering from general œdema, ascites, and cardiac failure, from which she died 3 days after admission.

Cause of death : *Cardiac disease, ascites, and general œdema.*

TABLE M IX.

NATURE OF PRESENTATION AND DELIVERY.

Presentation	Delivery							Induction		
	Normal	Forceps	Manual	Failed forceps before admission, normal after	Caes. Section	Craniotomy	Decapitation	Version	Normal	Forceps Total
Vertex.										
A., -	484	*19	...	1	6	3	...	...	13	3 529
A., -	95	9	...	...	...	...	...	...	3	... 107
P., -	4	4	...	...	...	...	...	...	...	... 8
P., -	7	4	...	...	...	...	...	...	...	... 11
Oblique presentation, 1	...	...	1	...	...	...	...	...	...	... 2
Oblique presentation, 36	...	...	3	...	...	1	...	...	4	... 44
Transverse presentation, ...	...	...	...	...	...	...	2	2	...	... 4
Oblique presentation, 2	2	2	...	...	...	...	...	1	...	... 5
Oblique presentation, 1	...	...	...	...	...	...	...	...	...	... 1
Oblique presentation, 2	...	...	...	...	...	...	...	2	...	... 4
Oblique presentation, 4	1	...	...	...	...	3	...	...	...	... 8
Oblique presentation, 1	...	...	...	...	...	...	...	...	...	... 1
	637	39	4	1	6	7	2	5	20	3 724

* Two cases had forceps applied before admission without effecting delivery, forceps delivery after admission.

There were 14 pairs of twins, - - - - - 14
 One set quadruplets, - - - - - 3

PERCENTAGE TABLE OF DELIVERY.

	Cases.	Per Cent.
Normal,	637	88.0
Manual,	4	0.6
Version,	5	0.7
Forceps,	39	5.4
Induction,	23	3.2
Caesarean section,	6	0.8
Craniotomy,	7	0.9
Decapitation,	2	0.3
Failed forceps before admission, ...	1	0.1
	<u>724</u>	<u>100.0</u>

ECLAMPSIA.

There were 24 cases of eclampsia admitted to the Institution during the year. 2 were ante-natal cases, 17 were admitted before the onset of labour and were confined in the Institution, while 5 were cases that had been confined at home and admitted to the Institution after delivery :—

No.	Reg. No.	Age	Para.	Term	No. of Fits before and after Admission		Treatment	Child Alive or Still-born	Mother Alive or Dead	Remarks
Ante-natal					B.	A.				
1	587	20	1	7½ months	9	...	Routine	A.	A.	...
2	1067	42	9	6 "	2	...	"	A.	A.	Sent to County Con- valescent Home.
Confinement.					1	...	"	A.	A.	The patient was admit- ted in a very dazed condition.
3	137	21	1	8 "	...	...	"	A.	A.	Both discharged well.
4	156	35	5	F.T.	...	4	"	A.	A.	Mother discharged well
5	195	20	1	7 months	8	9	"	S.B.	A.	Both discharged well.
6	212	25	1	F.T.	4	5	"	A.	A.	Patient very drowsy on admission.
7	522	25	1	8½ months	...	2	"	A.	A.	Sent in as a bad albumi- nuria, labour induced after recovery from eclampsia.
8	540	29	1	8 "	...	6	"	A.	A.	Discharged well.
9	565	29	6	F.T.	1	2	"	A.	A.	Admitted in a coma- tose condition, re- mained drowsy for several days.
10	782	33	1	8 months	Several	...	"	A.	A.	Discharged well.
11	809	34	5	7 "	...	1	"	S.B.	A.	Discharged well, baby died 10 mins. after birth.
12	968	33	7	Nr. F.T.	2	1	"	A.	A.	Discharged well.
13	982	22	1	8½ months	3	19	"	A.	A.	Discharged well.
14	996	20	1	Nr. F.T.	...	1	"	A.	A.	Discharged well.
15	1273	27	4	8 months	3	...	"	A.	A.	Both discharged well.
16	1355	36	9	F.T.	1	5	"	A.	D.	Baby born in ambu- lance before admis- sion, patient died 7 hrs. after admission
17	1603	23	1	"	3	1	"	A.	A.	Discharged well.
18	1403	38	4	"	...	1	"	A.	A.	Discharged well.
19	1718	25	1	8 months	2	8	"	A.	A.	Discharged well.
Post-natal										
20	273	24	1	F.T.	5	...	"		A.	A piece of placental tissue was left in the uterus, which was digitally removed af- ter admission. The patient developed puerperal sepsis
21	604	27	2	7 months	1	...	"	...	A.	Discharged well.
22	1167	22	1	F.T.	3	11	"	...	D	Patient died 13½ hrs. after admission.
23	1203	22	1	7 months	2	...	"	...	A.	Patient in a very drowsy condition on admis- sion, premature twins both dying a few hrs. after labour
24	1303	46	?	8½ "	2	...	"	...	A.	Discharged well.

ECLAMPSIA.

Maternal mortality for the past six years:—

			Died.	Per cent. Mortality.
1923,	...	4 cases	2	50
1924,	...	12 cases	4	33·3
1925,	...	20 cases	6	30
1926,	...	27 cases	2	7·4
1927,	...	19 cases	2	10·5
1928,	...	24 cases	2	8·3
106 cases			18	16·9
Average Mortality rate.				

During the years 1923-24-25 morphine in large doses was administered, while in 1926-27-28 chloral hydras and bromide of potassium were used instead of morphine.

TABLE SHOWING PREGNANCIES AT VARIOUS AGE PERIODS.

Gravida	-20	-25	-30	-35	-40	-45	45 and over	Total
1	57	119	49	13	4	...	...	242
2	9	64	41	7	2	...	..	123
3	2	27	30	10	6	...	1	76
4	...	10	25	10	2	...	1	48
5	...	2	16	12	12	2	...	44
6	...	2	8	16	6	...	...	32
7	...	2	3	14	14	4	1	38
8	...	...	3	6	12	4	...	25
9	...	...	...	4	10	4	...	18
10	...	...	...	5	10	2	...	17
11	...	...	1	4	5	6	...	16
12	...	...	...	3	8	5	...	16
13	...	...	...	1	3	2	...	6
14	...	...	...	...	...	1	...	1
15 & over	...	...	...	...	2	2	1	5
	68	226	176	105	96	32	4	707

CAUSATION OF STILL-BIRTHS.

The number of still-births for the year is 71, and the causes were as follows:—

Albuminuria,	-	-	-	-	4	Macerated foetus,	-	-	-	-	11
Anencephalus,	-	-	-	-	3	Malpresentation,	-	-	-	-	1
Ante-partum hæmorrhage,	-	-	-	-	12	Prenaturity after toxæmia of					
Ascites,	-	-	-	-	1	pregnancy,	-	-	-	-	10
Contracted pelvis, craniotomy,	-	-	-	-	6	Prolapsed cord,	-	-	-	-	5
Contracted pelvis.						Spina bifida,	-	-	-	-	1
Forceps delivery,	-	-	-	-	1	Toxæmia of pregnancy,	-	-	-	-	1
Decapitation,	-	-	-	-	5	No known cause. normal delivery,					3
Delayed labour,	-	-	-	-	5						
Eclampsia,	-	-	-	-	1						
Impacted head after breech.											71
Presentation,	-	-	-	-	1						

Sex.	Babies born alive.		Babies still-born.	
	Legitimate.	Illegitimate.	Legitimate.	Illegitimate.
Males, -	273	57	43	2
Females,	257	59	24	2
	646		71	

The following shows the number of infants born since the Local Authority began the treatment of maternity cases, 1918 to 1928:—

	In residence.	Infants Born alive.	Still-born.	Discharged well.	Died.	In residence.
1918, -	—	7	—	—	—	2
1919,	2	30	2	22	5	5
1920, -	5	110	6	105	6	4
1921, -	4	203	22	183	15	9
1922, -	9	213	50	201	11	10
1923, -	10	288	57	273	20	5
1924, -	5	334	61	303	23	13
1925, -	13	501	56	458	28	28
1926, -	28	643	64	605	43	23
1927, -	23	683	63	659	27	20
1928, -	20	646	71	621	32	13

INFANTILE DEATHS.

33 infants died in the Institution during the year; 32 were children who were born in hospital; 1 was a child admitted with mother during the puerperium.

Causes of death were as follows:

Premature birth,	-	-	-	-	-	-	27
Debility, -	-	-	-	-	-	-	3
Injury at birth,	-	-	-	-	-	-	1
Icterus neonatorum,	-	-	-	-	-	-	1
Septic pneumonia,	-	-	-	-	-	-	1
							<hr/> 33 <hr/>

Specimens examined at the County Laboratory during the year under review number 338.

	Positive.	Negative.
There were 37 swabs taken from cases of suspected ophthalmia neonatorum and the results of examination for gonococci were as follows, —		37
Placental blood specimens for Wasserman reaction—		
Number of specimens of blood examined, 249,		
the results were as follows, 9		240

TRAINING OF PUPIL MIDWIVES.

During the year 19 pupils were admitted for training, bringing the total number of pupils trained since the Institution was recognised as a training school up to 134.

The following are the regulations at present in force regarding applicants desirous of midwifery training:—

In respect of the training afforded, all nurses who are on the General or Supplementary Register and living outside the Local Authority's area shall pay a premium of £30. For those living in the Local Authority's area the premium will be £20, whether they are on the said register or not. Nurses who receive their training in any of the County institutions will obtain their training as a midwife free of charge, except as after mentioned, but such nurses shall not be entitled to such free training unless they have completed three years' training as a nurse. When a nurse has left any of the County institutions she will not be entitled to free training as a nurse. Of the amounts mentioned, £1 must accompany the application for engagement, and the balance will be payable when training is commenced. Nurses who are trained in the Local Authority's institutions must likewise make a deposit of £1 at the time of application for engagement. Such deposit shall not be repayable except, in the opinion of the Physician-Superintendent, special circumstances warrant repayment. Where an applicant has received previous training, one reference must be from the matron under whom she last worked.

Applicants who are not certified nurses must have a good general education. Applicants who do not hold a certificate in English satisfactory to the Physician-Superintendent must pass a test in English (including dictation), and also, if required, in arithmetic and general knowledge.

	Nurses admitted.	Free training.	Deposit only.	Fee paying.	Total Fee.
1921-22, ...	13	10	—	3	£60
1923, ...	17	7	—	10	144
1924, ...	21	1	5	15	199
1925, ...	26	1	6	19	373
1926, ...	26	—	2	24	500
1927, ...	12	—	4	8	185
1928, ...	19	2	10	7	180
	134	21	27	86	£1,641

The reduction in numbers for the year 1927 was due to the extended period of training.

STAFF.

The Staff consists of the following :—

Physician-Superintendent.	4 Staff Nurses
Consulting Surgeon.	1 Typist.
Anæsthetist.	9 Maids.
Matron.	1 Chauffeur.
3 Sisters.	4 Stoker-gardeners.

In addition to the permanent staff, there are 12 nurses who are taking the qualifying course in midwifery.

PUERPERAL SEPSIS AND MORBIDITY.

During the year there were 51 cases showing some evidences of septic absorption, as follows :—

Case notified as acute sepsis, died in this Institution,	1
Removed to the County Isolation Hospital, and notified as suffering from puerperal sepsis, ...	21
Puerperal morbidity, B.M.A. standard,	29
	—
	51
	==

The evening report of May 25th, 1928, showed that there were 10 cases which had an accelerated pulse rate (110 to 130 per minute), and it was considered advisable to have those cases removed to the County Isolation Hospital.

Thirteen cases of puerperal sepsis, classified according to the severity of the disease :—

A. = Mild,	6
B. = Moderate,	5
C. = Severe,	2

Twelve of the above number suffered from the following conditions before or during labour :—

Adherent placenta,	1
Albuminuria,	1

Ante-partum and post-partum hæmorrhage,	1
Deficient membranes and placenta,	2
Failed forceps before admission,	1
Keloid scar (discharging) after laparotomy for ovarian cyst,	1
Macerated fœtus and unhealthy placenta,	1
Perineal tear,	1
Perineal tear, severe post partum hæmorrhage,	1
Puerperal sepsis previous confinement, present confinement	
normal,	1
Pyelitis,	1

Cases classified as suffering from morbidity, exclusive of puerperal sepsis, suffered from the following conditions, except in four cases of normal confinement no cause could be assigned to the rise of temperature:—

<i>Normal Confinements</i> ,	4
Albuminuria,	1
Albuminuria, general toxæmia of pregnancy, ante-partum hæmorrhage,	3
Albuminuria and perineal laceration,... ..	1
Contracted pelvis, decapitation, albuminuria,	1
Engorged breasts,	2
Forceps delivery, perineal laceration,... ..	1
Influenzal chill,	1
Membranes deficient,	1
Perineal laceration,	4
Pernicious anæmia,	1
Pleurisy,	1
Pneumonia,	2
Premature labour,	1
Prolapse of the cord, forceps delivery,	1
Pulmonary tuberculosis, sputum positive,	1
Pyelitis,	1
Ragged and unhealthy placenta,	1
Severe accidental hæmorrhage,	1

OUT-PATIENT DEPARTMENT.

During the year a number of cases suffering from abnormal conditions affecting pregnancy and from post-natal conditions received advice at the clinic. Such cases are usually sent to the hospital by medical practitioners.

The clinic is held three times a week for women suffering from conditions which may be the result of abnormal and difficult labour.

OUT-PATIENT DEPARTMENT.—ANTE-NATAL CASES.

Parishes	Normal	Contracted Pelvis	Toxæmias of Pregnancy	Ante-partum Hæmorrhage	Abortions	Pyelitis	Others
Avondale, - - - -	2	...	...	...	...	...	...
East Kilbride, - - -	2	...	...	...	...	...	...
Glasford, - - - -	5	1	...	...	...	...	1
Stonehouse, - - - -	5	...	...	...	...	...	...
Blantyre, - - - -	15	...	...	...	...	...	...
Bothwell, - - - -	78	1	3	5	...	1	2
Cambuslang, - - - -	9	1	2	2	...	...	1
Cambusnethan, - - -	14	2	1	...	...	1	1
Dalserf, - - - -	19	1	...	...	1	...	1
Dalziel, - - - -	19	1	...	...	1	...	1
Hamilton, - - - -	8	...	1	...	...	...	3
New Monkland, - - -	18	1	2	1	...	...	1
Old Monkland, - - -	15	...	1	...	...	...	1
Shotts, - - - -	11	1	2	...	...	...	...
Lower Ward, - - - -	14	...	...	...	...	1	...
Upper Ward, - - - -	16	1	...	1	...	...	...
	250	10	12	9	2	3	12

Others—

Anæmia,	1	Heart disease,	1
Chorea,	1	Inguinal hernia,	1
Bronchitis,	1	Hydramnios,	1
Cervicitis,	1	Exophthalmic goitre,	1
Pseudocystis,	1	Rheumatism,	1
Tumours,	1		

GYNÆCOLOGICAL CASES.

		Endometritis	Dysmenorrhœa	Amenorrhœa, with Anæmia	Cervical Laceration	Perineal Laceration	Prolapsus Uteri	Cystocele	Uterine Displacements	Cystic Ovary	Incontinence of Urine	Uterine Fibroid	Lumbar Pain	General Debility	Pelvic Inflammation	Others	Total
Avondale, - -	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3
East Kilbride, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glasford, - -	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1	4
Stonehouse, - -	1	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	4
Blantyre, - -	2	...	1	2	...	2	...	...	...	...	...	...	...	2	3	...	12
Bothwell, - -	8	2	5	4	1	2	2	1	...	...	...	1	2	...	2	...	30
Cambuslang, - -	5	1	1	1	1	...	...	...	...	...	...	...	...	...	...	2	11
Cambusnethan, -	3	1	3	1	...	1	...	...	...	...	...	...	...	...	1	...	10
Dalserf, - - -	3	2	4	3	2	2	...	...	1	...	2	...	...	...	...	2	21
Dalziel, - - -	4	...	2	3	...	1	...	...	...	...	...	...	1	...	1	...	12
Familton, - - -	..	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2
New Monkland, -	4	1	1	4	1	...	...	...	...	...	...	...	...	...	1	2	14
Old Monkland, -	1	...	2	...	...	...	...	2	1	1	...	...	...	...	1	1	9
Potts, - - -	1	...	1	...	2	2	...	1	...	...	...	1	1	...	...	1	10
Lower Ward, - -	2	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	5
Upper Ward, - -	1	...	...	1	1	1	...	...	...	...	...	...	1	...	2	1	8
		36	7	20	21	10	12	2	5	2	1	4	5	3	16	11	155

Others were as follows:—

Sterility,	5	Chronic Appendicitis,	1
Neurotic,	3	Peri-urethral Epithelial thickening, ..	1
Bladder fistula,	1		
Total,	11		

County Convalescent Home, Calderbank House.

Physician-Superintendent—WILLIAM GLASGOW, M.B., Ch.B.

Matron—Mrs. MACDOUGALL.

<i>Admissions and Discharges.</i> —		Adults.	Children
In Residence, 1st January, 1928,	- - -	7	40
Admitted during the year,	- - -	250	389
Discharged during the year,	- - -	251	383
Died during the year,	- - -	...	14
In residence, 31st December, 1928,	- - -	6	32

<i>Reasons for Admission.</i> —		ADULTS.	
Ante-Natal—		Post-Natal—	
Debility,	- - 62	Debility,	- - - 122
Cardiac,	- - 2	Eclampsia	- - - 1
Albuminuria,	- - 2	Albuminuria,	- - - 1
Placenta Prævia,	- 1	Tape Worm,-	- - - 1
Chorea,	- - - 1	Puerperium,	- - - 1
		Post-Encephalitic,	- - - 1
		Skin,	- - - 1
		Tuberculosis,	- - - 1
Gynæcological—		Others—	
Dysmenorrhœa,	- 2	Anæmia,	- - - 26
Leucorrhœa,	- - 1	Ear, Nose, and Throat.	- - - 6
Post-Operative,	- 2	Post-Operative Debility,	- - - 6
		Nephritis,	- - - 2
		Cardiac,	- - - 2
		Skin,	- - - 3
		Ex-Ophthalmic Goitre,	- - - 1
		Rheumatoid Arthritis,	- - - 1
		Acute Rheumatism,	- - - 1

CHILDREN.

Admitted with Mother,	104	Respiratory,	- - - 4
Debility, - - -	116	Tape Worm,	- - - 3
Ear, Nose, and Throat,	73	Skin, - - -	- - - 3
Rickets, - - -	62	Infantile Paralysis,	- - - 2
Enteritis, - - -	10	Adenitis,	- - - 1
Marasmus, - - -	6	Flat Foot,	- - - 1
Cardiac, - - -	3	Mental Deficient,	- - - 1

Results.—

ADULTS.				CHILDREN.			
				Discharged :—			
Well,	-	-	76	-	-	-	206
Improved,	-	-	109	-	-	-	107
I.S.Q.,-	-	-	28	-	-	-	45
				Transferred to :—			
Bellshill Hospital,	-		36	-	-	-	...
Motherwell Hospital,			1	-	-	-	21
Longriggend Sanatorium,			1	-	-	-	...
Stonehouse Hospital,			...	-	-	-	3
Shotts Sanatorium,	-		1	-	-	-	1
Died,	-	-	...	-	-	-	14

The causes of the deaths recorded were as follows:—

Congenital Debility,	-	-	5	Broncho-pneumonia,	-	3
Marasmus,	-	-	4	Gastro-enteritis,	-	2

CHILD WELFARE CENTRES AND INSTITUTIONS FROM WHICH
ADMISSIONS WERE ARRANGED.

Airdrie,	-	-	-	9	Shotts,	-	-	-	41
Baillieston,	-	-	-	21	Uddingston,	-	-	-	31
Bellshill,	-	-	-	91	Tannochside,	-	-	-	21
Blantyre,	-	-	-	54	Ear, Nose, and Throat Clinic,				74
Cadzow,	-	-	-	2	Bellshill Hospital,	-	-		69
Cambuslang,	-	-	-	28	Motherwell Hospital,	-	-		2
Chapelhall,	-	-	-	13	Longriggend Sanatorium,	-			1
Larkhall,	-	-	-	73					
Newarthill,	-	-	-	25	In addition admitted from :—				
New Stevenston,	-	-	-	40	Upper Ward,	-	-	-	18
Newmains,	-	-	-	17	Lower Ward,	-	-	-	9

PLACE OF RESIDENCE OF MIDDLE WARD CASES ARRANGED
ACCORDING TO PARISH.

Avondale,	-	-	-	5	Dalziel,	-	-	-	92
Blantyre,	-	-	-	68	Hamilton,	-	-	-	11
Bothwell,	-	-	-	177	New Monkland,	-	-	-	39
Cambuslang,	-	-	-	36	Old Monkland,	-	-	-	35
Cambusnethan,	-	-	-	20	Shotts,	-	-	-	48
Dalserf,	-	-	-	77	Stonehouse,	-	-	-	4

EAR, NOSE, AND THROAT.—The following conditions were treated :—

Tonsils and Adenoids (removal),	-	-	-	-	-	-	56
Otorrhœa,	-	-	-	-	-	-	6
Rhinitis, -	-	-	-	-	-	-	3
Nasal Septum (re-section),	-	-	-	-	-	-	5
Antrum (puncture), -	-	-	-	-	-	-	2
Mastoid, -	-	-	-	-	-	-	2

ARTIFICIAL LIGHT TREATMENT—IN-PATIENTS.

Receiving treatment, 1st January, 1928, -	-	-	-	-	12
Commenced treatment during 1928, -	-	-	-	-	140
Continuing treatment, 31st December, 1928, -	-	-	-	-	11

Conditions treated and results were as follows :—

Condition.	Discharged.				Worse and Treat- ment Stopped.	Con- tinuing.	Stopped on own respon- sibility.
	No.	Well.	Improved.	I.S.Q.			
Rickets, -	57	16	35	6	—	—	6
Debility, -	66	13	22	20	3	8	13
Marasmus, -	6	1	1	—	2	2	—
Adenitis, -	2	—	1	1	—	—	—
Ear, Nose, and Throat, 3	—	—	2	1	—	—	—
Infantile Paralysis, -	4	—	2	2	—	—	2
Skin, -	1	—	1	—	—	—	—
T.B. Ankle, -	1	—	1	—	—	—	—

The history of the 5 cases under the heading “Worse and Treatment Stopped” was as follows :—

CASE 1.—Child, 5 months—admitted because of marasmus—condition very poor—weight for the first month was stationary: commenced treating with Ultra-Violet Light: no increase in weight: then commenced losing weight—this went on gradually—Ultra-Violet treatment stopped—child finally died.

CASE 2.—Child, $4\frac{1}{2}$ years—admitted on account of severe debility—unable to walk Ultra-Violet Light treatment given: continued losing weight gradually—Ultra-Violet Light treatment stopped—following week showed slight gain in weight, but unfortunately the parents took the child home before any further observations could be made.

CASE 3.—Child, 8 months—admitted for malnutrition—given Ultra-Violet Light treatment—but each week over a period of six weeks showed loss of weight—Light treatment stopped—commenced putting on weight, and apart from one relapse (enteritis) gradually improved and was discharged well.

CASE 4.—Child, 1 year 5 months—malnutrition—weight, 15 lbs. 9 ozs.—Ultra-Violet Light given for 3 weeks—each week showed a diminution in weight—Light treatment stopped—the following week also showed a loss of weight, but after that she gradually improved and was discharged much improved.

CASE 5.—Child, 1 year 4 months—marasmus—under Light treatment—improved the first week after admission—then commenced losing—Light treatment stopped, but child gradually became weaker and died.

OUT-DOOR PATIENTS.—

Under treatment on 1st January, 1928, ...	...	7
Commenced treatment during 1928, ...	...	39
Under treatment 31st December, 1928, ...	...	7

Conditions treated and results were as follows:—

Condition.		Discharged.				Continuing Treat- ment.	Stopped on own Respon- sibility.
		No.	Well.	Improved.	I.S.Q.		
T.B. Adenitis,	-	23	1	11	11	4	13
Rickets,	-	10	2	3	5	2	6
Debility,	-	5	2	2	1	1	1
Alopecia,	-	5	—	3	2	—	4
T.B. Abdomen,	-	1	—	1	—	—	1
Infantile Paralysis,	-	2	—	1	1	1	1

INFECTIOUS DISEASES.—During the year several cases were transferred to Motherwell Hospital on account of infectious disease. During April and May the Institution was emptied on two occasions—the contacts sent home and thorough disinfecting done. The various

conditions necessitating transfer and dates on which they occurred were as follows :—

Date.		Disease.		No.
January 31st,	- -	Pneumonia,	- -	1
February 8th,	- -	Vincent's Angina,	-	1
February 12th.	- -	Pneumonia,	- -	1
February 16th.	- -	Vincent's Angina,	-	1
March 10th,	- -	Measles,	- -	1
March 21st,	- -	Measles,	- -	1
April 4th,	- -	Measles,	- -	6
April 7th,	- -	Measles,	- -	2
April 20th,	- -	Scarlet Fever,	- -	1
May 5th	- -	Measles,	- -	1
May 10th,	- -	Scarlet Fever,	- -	1
May 17th,	- -	Scarlet Fever,	- -	1
May 18th,	- -	Measles,	- -	1
August 31st,	- -	Erysipelas,	- -	1

Administration.

BUILDINGS AND GROUNDS.—During the year the domestic premises were redecorated, also the adult wards and nurses' dormitory. The outside of the Institution was repainted in the autumn. The interior of the Nurses Home (Lodge) was redecorated, while the exterior received painter and plaster work.

ACCOMMODATION.—Remains unchanged and consists of 14 adult beds, 18 treasure cots, and 36 children's cots.

STAFF.—The nursing staff consists of matron, 1 sister, 2 staff nurses, and 8 probationers. Domestic staff consists of 1 cook, 2 laundry maids and 5 maids. Out-door staff consists of gardener, assistant gardener, and an apprentice gardener.

In October Miss Johnstone, the former matron, resigned, and Mrs. MacDougall, senior sister, Bellshill Hospital, was appointed matron.

County Hospital, Blantyre.

Physician-Superintendent—GEORGE MURRAY, M.B., Ch.B., D.P.H.

Sister-in-Charge—Miss LEE.

ACCOMMODATION.—The accommodation for patients is 11 cots and 7 beds.

STAFF.—The staff consists of charge sister, 2 staff nurses, 3 probationers, 3 maids, and 1 part-time gardener. The gardener resigned in December and further appointment was made before the end of the year.

BUILDING AND GROUNDS.—Towards the end of the year the iron fence round the Hospital grounds was repainted and certain slight alterations were made in the building. The roof ventilators, owing to continual leaking during rainy weather were closed up, sufficient ventilation being maintained by the windows. A new and larger basin was installed in the children's ward and the fireplaces repaired. The work was carried out by the Works Department.

CASES TREATED.—Seven cases were under treatment on 1st January, 1928, and during the year 125 cases were admitted, 116 were discharged, and 5 died, leaving 11 cases under treatment at the end of the year.

PLACES OF RESIDENCE.—Of the 125 cases admitted, 122 resided in the Middle Ward, and 3 in the Upper Ward. The Parishes of residence of patients admitted from the Middle Ward were:—

Bellshill, -	17	Dalserf, -	1	New Monkland, 1
Blantyre, -	27	Dalziel, -	2	Old Monkland, 4
Bothwell, -	10	Hamilton, -	2	Shotts, - - 10
Cambuslang, -	14	Holytown, -	17	Stonehouse, - 1
Cambusnethan, 7		Larkhall, -	9	

AGES OF PATIENTS.—The ages of patients under treatment were as follows:—

CHILDREN:—

Months.		Years.		Total.
-6	6-12	1-2	2-5	
24	9	7	4	44

OTHERS:—

Years.					Over	Total.
-20	-25	-30	-35	-40	40	
6	21	14	18	13	9	81

NATURE OF ADMISSIONS.—The conditions which necessitated admission were:—

CHILDREN:—

Mother in hospital, - - -	7	Marasmus, - - -	10
Malnutrition, - - -	12	Enteritis, - - -	8
Rickets, - - -	3	Hernia, - - -	1
Pulmonary Tuberculosis, -	1	Prolapse of Rectum, - -	1
Abdominal Tuberculosis, -	1		
			<hr/> 44

OTHERS:—

Post-natal—

Debility, - - -	9
Albuminuria, - - -	3
Abortion, - - -	3
Mastitis, - - -	5
Anæmia, - - -	1
Paraplegia, - - -	1
Puerperal Fever, - -	1
Valvular Heart Disease, -	1
	<hr/> 24

Ante-natal—

Debility, - - -	20
Albuminuria, - - -	11
Varicose Veins, - - -	3
Leucorrhœa, - - -	2
Threatened Abortion, -	2
Chorea, - - -	1
Acute Bronchitis, - -	1
	<hr/> 40

Gynæcological—

Endometritis, - - -	3
Prolapse of Uterus, - -	1
Leucorrhœa, - - -	1
Bladder Fistula, - - -	1
Anæmia and Amenorrhœa, -	1
Perineal Tear, - - -	1
	<hr/> 8

Others—

Debility, - - -	3
Rheumatism, - - -	2
Nephritis, - - -	2
Burn of Leg, - - -	1
Rheumatoid Arthritis, -	1
	<hr/> 9

RESULTS OF TREATMENT.—74 cases were discharged well, 8 improved, 6 I.S.Q., 26 were transferred to Bellshill Hospital, 2 to Motherwell Hospital, and 4 children and 1 mother died.

The cause of death were as follows:—

Marasmus, - - -	2
Enteritis, - - -	1
Pulmonary Tuberculosis, -	1
Valvular Disease of Heart, -	1

III. GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings, "Houses let in Lodgings," "Tents, Vans, and Sheds," "Workshops," "Scavenging," "Private Streets," "Nuisances," "Interments," &c.

Housing.

Post-War Housing Scheme.—The following tabular statement shows the progress made in connection with the erection of State-aided houses during the years 1921 to 1927, inclusive:—

Year.	Houses occupied.	Houses Ready for occupation.	Houses in progress.	Total.
1921, ...	253	85	2,300	2,638
1922, ...	1,344	152	1,822	3,318
1923, ...	3,054	65	297	3,416
1924, ...	3,365	1	168	3,534
1925, ...	162	32	606	800
1926, ...	397	123	1,588	2,108
1927, ...	1,707	147	1,354	3,208
1928, ...	3,033	46	501	3,580

The position of the post-war housing scheme at the close of the year is shown in detail in the following statistical information, supplied by Mr. P. C. Smith, the Committee's Housing and Town Planning Engineer:—

Progress Report for Period ended 31st December, 1928.

SUBSIDY.

Scheme	Houses occupied	Houses ready for occupation	Houses in progress	Painting, &c.	Joiner finishing	Plastered or ready for Plaster	Slated or ready for Slates	Ready for roof	Main joist level	Sleeper joist level	Foundations
Houses completed, -	1,636	—	—	—	—	—	—	—	—	—	—
Kingshill, -	80	2	—	—	—	—	—	—	—	—	—
Muireedge, -	84	—	—	—	—	—	—	—	—	—	—
Overton Road, -	76	—	—	—	—	—	—	—	—	—	—
East Kilbride, -	17	—	13	9	4	—	—	—	—	—	—
Fallside, -	—	—	76	60	16	—	—	—	—	—	—
Glenboig, -	—	—	24	24	—	—	—	—	—	—	—
Ballgreen No. 2, -	—	16	—	—	—	—	—	—	—	—	—
<i>Totals, -</i>	1,893	18	113	93	20	—	—	—	—	—	—

Report for Period ended 31st December, 1928.

SLUM CLEARANCE.

Scheme	Houses occupied	Houses ready for occupation	Houses in progress	Painting, &c.	Joiner finishing	Plastered or ready for Plasterer	Slated or ready for Slater	Ready for roof	Main joist level	Sleeper joist level	Foundations
Houses completed, -	864	—	—	—	—	—	—	—	—	—	—
Orbiston No. 2, -	102	—	—	—	—	—	—	—	—	—	—
Auchinraith No. 2, -	86	10	4	4	—	—	—	—	—	—	—
Strutherhill, -	16	—	56	8	32	16	—	—	—	—	—
Carmyle (Station), -	16	—	84	22	34	28	—	—	—	—	—
Crosshill, No. 2, -	26	—	12	4	8	—	—	—	—	—	—
Overton Road, No. 2, -	—	—	28	4	8	16	—	—	—	—	—
Springhill (transferred), -	30	18	—	—	—	—	—	—	—	—	—
Fallside, -	—	—	92	—	—	20	8	8	12	22	22
Glenboig, -	—	—	28	—	—	12	16	—	—	—	—
Calderbank, No. 3, -	—	—	16	—	16	—	—	—	—	—	—
Muiredge, No. 2, -	—	—	28	—	—	28	—	—	—	—	—
Wemysshill, Overtown, -	—	—	40	—	—	18	14	8	—	—	—
Totals, -	1,140	28	388	42	98	138	38	16	12	22	22

Dairies.

There were no additional licences granted under the Milk (Special Designations) Order (Scotland), 1923, during the year 1928, but one application was being dealt with at the close of the year. Of the previous licences granted, one was withdrawn and one refused, leaving a total of 13, as shown in the following tabular statement:—

Milk and Dairies Amendment Act, 1922:—Court proceedings were instituted against a Co-operative Society for selling “Pasteurised” milk in contravention of Section 3 of the Milk & Dairies (Amendment) Act, 1922. The accused pled guilty, and the Sheriff imposed a fine of £2.

Name of Licensee.	Location of Premises.	Nature of Licence.	Daily yield of milk at last Inspection.	Disposal.
1. Lord Hamilton of Dalzell,	Dalzell Home Farm, Motherwell,	Certified	80 galls.	40 gallons retailed locally and to Employees. 40 gallons for other purposes.
2. Andrew Wood,	Nerston Farm, East Kilbride,	Grade "A" 62	„	60 gallons to East Kilbride Dairy Farmers' Company. 2 gallons for other purposes.
3. Middle Ward District Committee,	Hairmyres Colony, East Kilbride,	Certified	70 „	All for Institutional purposes.
4. Mrs. James Murray,	Stramolloch Farm, Chapelton,	Grade "A" 38 (T.T.)	„	20 gallons retailed in Strathaven. 14 gallons wholesale to Stonehouse Hospital. 4 gallons for other purposes.
5. Eben More & Co.,	Dalmacoulter Farm, by Airdrie,	Certified	91 „	14 gallons wholesale to Longriggend Sanatorium. 4 gallons retailed as "certified." 40 gallons retailed as Grade "A" (T.T.) 30 gallons retailed as Ordinary. 3 gallons for other purposes.
6. Thomas Lambie,	Drumbuie Farm, East Kilbride,	Certified	54 „	50 gallons wholesale to East Kilbride Dairy Farmers' Co. (12 gallons as "Certified," 38 gallons as Grade "A" (T.T.)) 4 gallons for other purposes.
7. William Fleming,	Auldton Farm, Ashgill,	Certified	69 „	34 gallons wholesale to Motherwell and Dalserf Hospitals as Grade "A" (T.T.) 35 gallons retailed locally.
8. John Strachan,	Udstonhead Farm, Ashgill,	Grade "A" 74 (T.T.)	„	69 gallons to Motherwell, Bellskill, Calderbank. and Lightburn Hospitals. 5 gallons for other purposes.
9. Andrew Gilchrist,	Brae Farm, Chapelton,	Grade "A" 28 (T.T.)	„	28 gallons wholesale to East Kilbride Dairy Farmers' Co.
10. John Fleming,	Bruntland Dairy, Waterloo,	Grade "A" 48	„	All retailed locally.
11. James Wilson,	Westburn Farm, Cambuslang,	Certified	39 „	34 gallons wholesale to Auld's Dairy, Cambuslang; 18 "Certified," 16 Ordinary. 5 gallons for other purposes.
12. John Hamilton,	Low Mains Farm, East Kilbride,	Certified	67 „	60 gallons wholesale to Ideal Ideal Dairies, Glasgow, as Grade "A" (T.T.). 7 gallons for other purposes.
13. Alexander Wilson,	South Carnduff Farm, Strathaven,	Grade "A" 45 (T.T.)	„	All wholesale to East Kilbride Dairy Farmers' Company.

Drainage and Sewage Disposal.

The work done in this connection is dealt with in the Report of the District Sanitary Inspector, and in the Rivers Pollution and Prevention Section of the County Report.

Pithead Baths.—An interesting development falls to be recorded in the provision of pithead baths by the Glasgow Iron and Steel Company, Ltd., at the Dalzell and Broomside Collieries. The installation includes bathing facilities, lockers for clean and pit clothes, equipment for brushing and greasing boots, canteen, and lavatories, while the provision of an extra drying room for those working in very wet places is under consideration. Accommodation is provided for 616 men and 26 women, the accommodation for the latter being in a separate annexe. Some 515 men are taking advantage of the facilities offered, for which 6d. per week is paid. A plan of the building is reproduced, and clearly indicates the method of keeping the pit clothes from the clean clothes.

Water Supply.

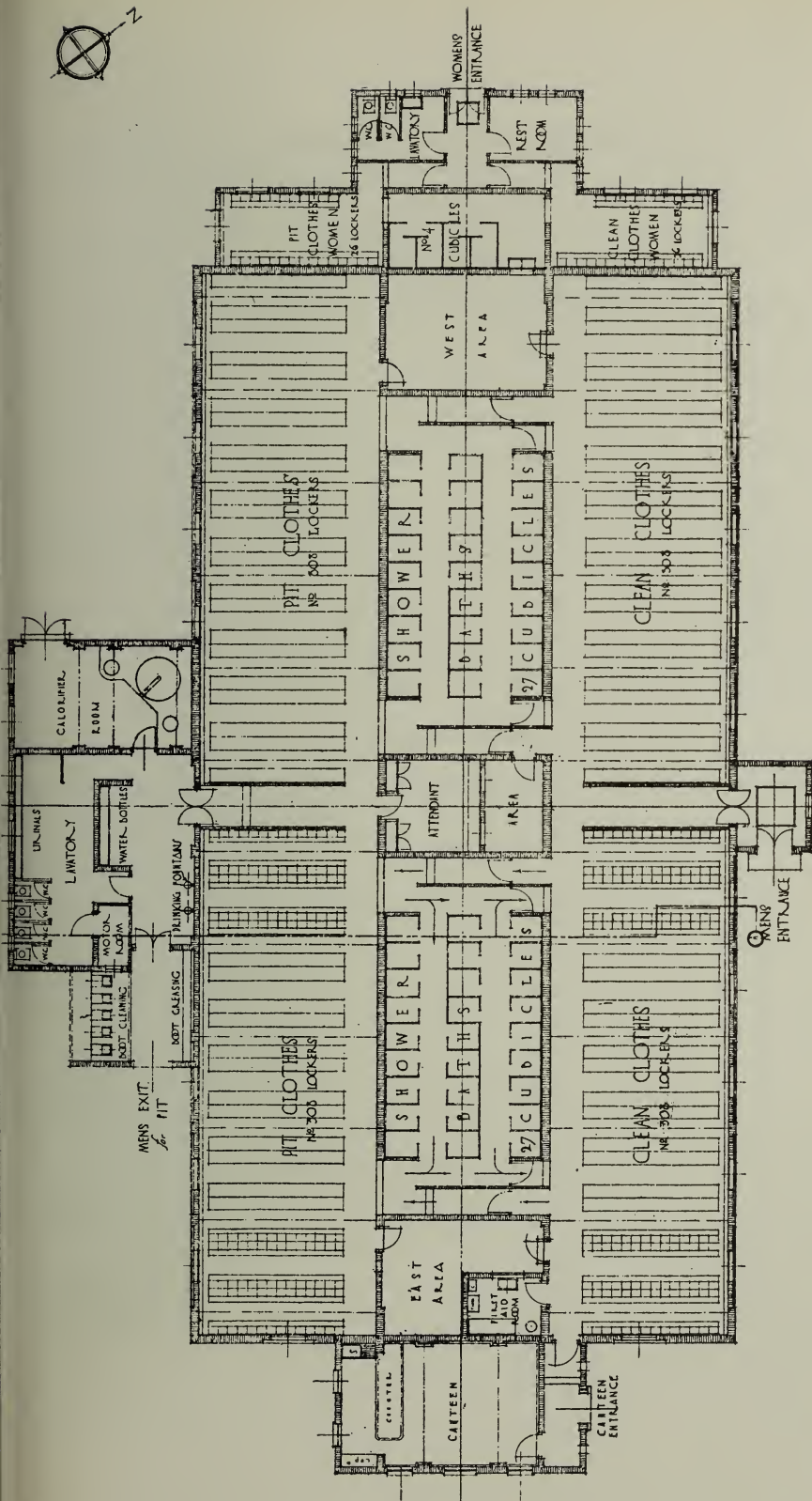
A note of the samples of water taken during the year for analysis, together with the subsequent results and improvements, will be found in the Report of the District Sanitary Inspector.

Staffing Arrangements.

There was one alteration in the Medical Staff during the year, namely, the appointment of Dr. George Murray to the vacancy incurred by the resignation of Dr. Thomas Hunter.

BUILDING REGULATIONS.

The total number of plans lodged for approval during the year amounted to 112. A large proportion of these had not been prepared in accordance with the By-laws, and it was only after much correspondence and meetings with the Architects that matters were adjusted. All the disconformities were reported to and dealt with by the Committee. Two sets of plans were withdrawn.



PLAN

BROOMSIDE COLLIERY PITHEAD BATHS,

During the course of construction of the buildings, 2,513 inspections were made, resulting in the detection of a number of contraventions, which were reported to and dealt with by the Committee.

1,410 smoke-tests were made of the drains and plumber work connected with the sanitary fittings of new properties. In several cases the work was found defective and retests had to be made, but on the whole the work done by the Contractors was of a very good standard.

In addition to the plans lodged under the Building By-laws, 66 plans were received and approval granted for various erections of a minor character.

NEW BUILDINGS UNDER BY-LAW No. 41.—Houses and shops, 58; workshops, 2; public buildings, 12; and other buildings, 4; total plans, 76.

ALTERATIONS IN THE MODE OF OCCUPANCY, UNDER BY-LAW No. 51.—Houses and shops, 21, workshops, 4; public buildings, 11; and other buildings, 0; total plans, 36.

HOUSING, &C., ACT, 1923.—19 applications, comprising 106 houses, were dealt with. A number of the plans and specifications required adjustment, but all were made to conform to the Regulations issued by the Scottish Board of Health. Operations were commenced during the year in 18 cases. A large number of houses have been completed, and Certificate B, for grant earned, has been issued to 24 owners, in respect of 126 houses.

Private individuals continue to take advantage of the benefits under this scheme, and very little trouble is experienced with departures from the approved plans and specifications.

HOUSING (FINANCIAL PROVISIONS) ACT, 1924.—Local Authority's Schemes.—784 houses were inspected and reported on. Included in this total are 164 houses notified completed during 1927, but not reported on until present year. During the year 132 houses were transferred from Subsidy to Slum Clearance Scheme, 20 of which had been reported completed in 1927 and Certificate B issued for same.

HOUSING (FINANCIAL PROVISIONS) ACT, 1924.—Private Enterprise.—24 houses under this scheme were completed, and Certificate B granted. No new applications received during the year.

HOUSING (SCOTLAND) ACT, 1925.—7 applications (embodying 69 houses of two apartments), under Section III of the above Act,

were received for the erection and conversion of existing dwellings into two-apartment houses (see Table II).

The plans for these were, in all cases, reported to the Public Health and Housing Committees.

HOUSING (RURAL WORKERS) ACT, 1926.—3 applications for assistance under this scheme were received during the year.

Operations in connection with one application were completed and Certificate B granted.

TABLE I.—NUMBER OF SETS OF PLANS LODGED DURING THE YEAR 1928 IN ACCORDANCE WITH BY-LAWS 41 AND 51, CLASSIFIED ACCORDING TO THE NATURE OF THE BUILDINGS SET FORTH IN PLANS.

PARISH.	Plans lodged for New Buildings under By-Law 41.				Plans lodged for alterations in mode of occupancy of Existing Buildings under By-Law 51.			
	Houses and Shops.	Work-shops.	Public Buildings.	Others.	Houses and Shops. *	Work-shops.	Public Buildings.	Others.
Avondale, - -	9	1	2	...	3	...	1	...
East Kilbride, -	13	...	...	1	...	...	...	...
Glasford, - -	2	...	...	1	1	..	...	...
Stonehouse, - -	1	...	1	...	3	...	...	...
Blantyre, - -	2	...	...	...	4	...	...	...
Bothwell, - -	5	...	1	...	1	2	3	...
Cambuslang, - -	6	...	...	...	2	...	2	...
Cambusnethan, -	7	...	3	1	2	1	...	...
Dalserf, - -	2	...	4	...	1	...	1	...
Dalziel, - -	...	...	...	...	...	...	...	...
Hamilton, - -	1	...	...	...	1	...	1	...
New Monkland, -	3	1	...	...	3	1	...	...
Old Monkland, -	5	...	1	...	...	...	...	...
Shotts, - - -	2	...	...	1	...	...	3	...
MIDDLE WARD, -	58	2	12	4	21	4	11	...
TOTAL FOR 1927, -	68	15	21	2	28	8	10	1

* In this column are included plans for additions to existing dwelling-houses. In this way 24 apartments were added to 18 houses.

TABLE II.—SHOWING NUMBER OF HOUSES AND SHOPS SET FORTH IN PLANS SUBMITTED UNDER BY-LAWS REGULATING THE BUILDING OR RE-BUILDING OF HOUSES OR BUILDINGS DURING 1928.

PARISH.	NEW BUILDINGS OF						TOTAL.
	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	Five Apartments and upwards.	Shops.	
Avondale, - -	...	1	18	5	...	3	27
East Kilbride, -	2	12	7	...	21
Glasford, - -	1	...	1	...	2
Stonehouse, -	1	...	...	...	1
Blantyre, - -	1	...	1	1	3
Bothwell, - -	30	...	...	6	36
Cambuslang, -	4	59	...	...	63
Cambusnethan, -	...	12	30	2	2	1	47
Dalserf, - -	1	1	...	...	2
Dalziel, - -
Hamilton, - -	...	1	1	...	...	...	2
New Monkland,	...	33	20	...	1	...	54
Old Monkland, -	...	22	4	3	1	...	30
Shotts, - -	9	...	...	...	9
MIDDLE WARD,	...	69	122	82	13	11	297
TOTAL FOR 1927,	...	342	953	141	64	15	1,515

Meat Inspections—Slaughterhouses, &c.

ALEXANDER CAMERON, M.R.San.I.

As General Superintendent of Abattoirs and District Meat Inspector, I have to submit the following report:—

It will be observed from Table I that the total number of animals slaughtered at the various abattoirs was 21,892, out of which 6,242 animals were found to contain disease in some form.

Of the 6,242, there were 1,346 carcasses totally or partially condemned, and 4,896 carcasses found with local conditions in which organs only were condemned, these combined being 28·51 per cent. of the total animals slaughtered, as compared with 29·25 per cent. the previous year.

Of the 9,589 cattle slaughtered at the various abattoirs, 150 were sent in by the County Veterinary Inspector under the Tuberculosis Order, and of these 129 were totally or partially condemned, and the remainder passed, being cases in which organs only were condemned.

Table II and III show in detail, for each slaughterhouse, the class of animals slaughtered, and the extent to which disease was prevalent, both in abattoirs and private slaughterhouses throughout the district.

Table IV shows the number of organs and the diseases for which they were condemned in those cases where organs only were condemned, in abattoirs and private slaughterhouses.

TABLE I.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.											
		Tuberculosis.						Other Diseases.					
		Carcases.				Organs only.		Carcases.				Organs only.	
Wholly.		Partially.		Wholly.				Partially.					
Class.	Num-ber.	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.
Cows, -	6,339	287	4·52	881	13·89	2,252	35·52	33	·52	17	·26	914	14·41
Heifers, -	1,922	7	·36	22	1·14	294	15·29	4	·20	3	·15	157	8·16
Bulls, -	169	2	1·18	6	3·55	17	10·05	—	—	—	—	16	9·46
Bullocks, -	1,159	1	·08	6	·51	66	5·69	—	—	—	—	107	9·31
Calves, -	2,305	16	·69	—	—	1	·04	18	·78	—	—	9	·39
Sheep, -	8,457	—	—	—	—	—	—	16	·18	6	·07	915	10·81
Swine, -	1,541	8	·51	3	·19	114	7·39	8	·51	2	·12	34	2·20
Total, -	21,892	321	7·34	918	19·28	2,744	73·98	79	2·19	28	·60	2,152	54·74

Bellshill.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	2,680	163	362	996	20	6	483
Heifers, -	481	2	13	52	1	1	11
Bulls, -	69	1	5	5	—	—	3
Bullocks, -	287	1	1	10	—	—	17
Calves, -	62	1	—	—	4	—	—
Sheep, -	2,700	—	—	—	3	—	274
Swine, -	257	3	1	6	2	1	2
Total, -	6,536	171	382	1,069	30	8	790

Bellshill.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep	Swine.	Total.
Abscess, - - -	1	1	—	—	—	2
Asphyxia, - - -	—	—	1	—	—	1
Dropsy, - - -	5	—	—	—	—	5
Emaciation, - - -	1	—	—	2	—	3
Gangrene, - - -	2	—	—	—	—	2
Gastritis, - - -	—	—	—	—	1	1
Immaturity, - - -	—	—	1	—	—	1
Injury, - - -	2	—	—	1	—	3
Jaundice, - - -	—	—	1	—	2	3
Jhones' Disease, - - -	1	—	—	—	—	1
Malignant Neoplasms, - - -	1	—	—	—	—	1
Navell Ill., - - -	—	—	1	—	—	1
Osteomyelitis, - - -	1	—	—	—	—	1
Pericarditis, - - -	3	—	—	—	—	3
Pyæmia, - - -	2	1	—	—	—	3
Sarcosporidia, - - -	1	—	—	—	—	1
Septic Metritis, - - -	3	—	—	—	—	3
Septic Pericarditis, - - -	1	—	—	—	—	1
Septicæmia, - - -	2	—	—	—	—	2
	26	2	4	3	3	38

Blantyre.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,325	65	299	431	8	6	82
Heifers, -	371	4	5	107	2	—	27
Bulls, -	16	—	—	—	—	—	2
Bullocks, -	274	—	2	17	—	—	29
Calves, -	709	8	—	5	5	—	9
Sheep, -	1,932	—	—	—	4	1	439
Swine, -	492	4	2	39	5	—	17
Total, -	5,119	81	308	599	24	7	605

Blantyre.—TABLE III.—OTHER DISEASES FOR WHICH ANIMALS WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep.	Swine.	Total.
Carcinoma, - - -	—	—	—	1	—	1
Emaciation, - - -	6	—	1	2	4	13
Enteritis, - - -	—	—	2	1	—	3
Jhones' Disease, - -	2	1	—	—	—	3
Pericarditis, - - -	1	—	—	—	—	1
Peritonitis, - - -	1	1	—	1	—	3
Pleuritis, - - -	1	—	—	—	—	1
Pyæmia, - - -	—	—	2	—	—	2
Septic Pericarditis, - -	1	—	—	—	—	1
Septic Metritis, - - -	2	—	—	—	—	2
Septicæmia, - - -	—	—	—	—	1	1
	14	2	5	5	5	31

Larkhall.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,272	29	196	641	5	5	120
Heifers, -	311	1	—	33	1	1	50
Bulls, -	21	—	1	9	—	—	4
Bullocks, -	194	—	2	16	—	—	33
Calves, -	214	1	—	—	1	—	—
Sheep, -	678	—	—	—	2	1	130
Swine, -	239	—	—	39	1	—	9
Total, -	2,929	31	199	738	10	7	346

Larkhall.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep.	Swine.	Total.
Hæmorrhage, - - -	1	—	—	—	—	1
Injury, - - - -	6	1	—	1	1	9
Navel Ill, - - -	—	—	1	—	—	1
Peritonitis, - - -	1	—	—	—	—	1
Pneumonia, - - -	1	—	—	1	—	2
Sapraemia, - - -	—	—	—	1	—	1
Sarcoma, - - - -	—	1	—	—	—	1
Septic Pericarditis, - -	1	—	—	—	—	1
	10	2	1	3	1	17

Strathaven.—TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	750	18	7	381	4	2	74
Heifers, -	267	—	—	64	—	2	7
Bulls, -	36	—	—	3	—	—	—
Bullocks, -	7	—	—	1	—	—	—
Calves, -	813	2	—	—	2	—	—
Sheep, -	1,393	—	—	—	—	—	6
Swine, -	364	1	—	28	—	—	—
Total, -	3,630	21	7	477	6	4	87

Strathaven.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Total.
Emaciation, - - -	—	2	1	3
Gastritis, - - -	—	—	1	1
Injury, - - -	1	—	—	1
Peritonitis, - - -	2	—	—	2
Pneumonia, - - -	1	—	—	1
Septic Metritis, - -	2	—	—	2
	6	2	2	10

Shotts.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	12	1	—	1	—	—	—
Heifers, -	37	—	—	7	—	—	—
Bulls, -	1	—	—	—	—	—	—
Bullocks, -	380	—	—	20	—	—	18
Calves, -	36	—	—	—	—	—	—
Sheep, -	75	—	—	—	—	—	—
Swine, -	18	—	—	—	—	—	—
Total, -	559	1	—	28	—	—	18

Baillieston.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	137	8	12	49	—	—	40
Heifers, -	309	—	2	28	—	—	40
Bulls, -	5	—	—	—	—	—	1
Bullocks, -	7	—	1	—	—	—	—
Calves, -	440	4	—	—	6	—	—
Sheep, -	1,437	—	—	—	7	4	58
Swine, -	93	—	—	—	—	1	—
Horses, -	—	—	—	—	—	—	—
Total, -	2,428	12	15	77	13	5	138

Baillieston.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Calves.	Sheep.	Swine.	Total.
Injury, - - - -	---	7	1	8
Navel Ill, - - - -	3	—	—	3
Emaciation, - - - -	—	4	—	4
Gastritis, - - - -	1	—	—	1
Gastro-Enteritis, - - - -	2	—	—	2
	6	11	1	18

Stonehouse. — TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcasses condemned wholly or partially. Carcasses in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcasses.		Organs only.	Carcasses.		Organs Only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	163	3	5	53	—	—	115
Heifers, -	146	—	2	3	—	1	22
Bulls, -	21	1	—	—	—	—	6
Bullocks, -	10	—	—	—	—	—	4
Calves, -	31	—	—	—	—	—	—
Sheep, -	242	—	—	—	—	—	5
Swine, -	78	—	—	2	—	—	6
Total, -	691	4	7	58	—	1	158

One heifer was partially condemned on account of injury.

Private Slaughterhouses.

TABLE II.

District.		Cattle.	Animals Slaughtered.		
			Calves.	Sheep.	Swine.
Greengairs, - -	-	116	2	106	13
Longriggend, - -	-	127	—	103	43
Chapelhall, - -	-	98	—	57	39
Glengowan, - -	-	172	—	165	2
Newarthill, - -	-	54	—	—	7
Cleland, - -	-	244	—	177	13
Harthill, - -	-	198	4	93	18
Total, - -	-	1,009	6	701	135

TABLE III.—ANIMALS CONDEMNED—WHOLLY OR PARTIALLY.

Animals Slaughtered.	Tuberculosis.			Other Diseases.		
	Wholly.	Partially.	Organs.	Wholly.	Partially.	Organs.
Cows, -	1	14	93	—	—	4
Heifers, -	—	8	20	—	—	1
Bulls, -	—	—	1	—	—	1
Bullocks, -	—	1	1	—	—	—
Calves, -	—	—	—	—	—	—
Sheep, -	—	—	—	—	—	1
Swine, -	—	—	1	—	—	—
Total, -	1	23	116	—	—	7

TABLE IV.—RETURN OF DISEASES FOR WHICH ORGANS WERE CONDEMNED.
DISEASES.

Organs Condemned.	Tuberculosis.	Abscess.	Actinomycosis.	Pericarditis	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Mammitis.	Neoplasms.	Bacterial Necrosis.	Jones' Disease	Angioma.	Esophagus Worm.	Estrus Larvæ.	Echymosis.	Traumatism.	Pentastomatosis.	Cysts.	Injuries.	Pentastomum Larvæ.	Cysts.			
																						Echino- coccus.	Coenurus Cerebralis.	Cysticercus	Teniaris.
Heads, -	1,178	1	39	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	3	—	—	2	—	1,178
Tongues, -	413	—	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	413
Lungs, -	2,862	1	2	—	3	7	1	—	—	—	—	—	—	—	17	—	—	—	—	—	—	4	—	—	2,862
Hearts, -	1	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Livers, -	390	—	—	—	—	—	665	947	—	2	39	7	74	—	—	1	2	—	—	—	—	35	—	90	2,390
Stomachs, -	166	—	—	—	—	—	—	—	—	1	—	5	—	—	—	—	2	—	—	—	—	—	—	7	166
Bowels, -	1,403	—	—	—	—	—	—	—	—	—	—	26	—	—	—	—	—	1	—	—	1	—	—	—	1,403
Kidneys, -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	30
Udders, -	97	—	—	—	—	—	—	653	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	97
Uteri, -	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Feet, -	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Total,	6,546	2	76	3	3	7	666	947	653	3	39	38	74	1	17	1	4	1	10	3	1	39	2	97	9,346

Note.—This Table does not include the Viscera of Carcasses wholly or partially condemned.

DISEASED UDDERS.—It will be observed that the total number of cows slaughtered was 6,339. Of these, 287 were totally condemned on account of generalised tuberculosis, 67 of which showed evidence of tubercle in the udder. There were 881 cows partially condemned on account of various forms of localised tuberculosis, and of these 30 had udders affected. In addition to the foregoing, there were 2,252 cows in which the disease was so localised that organs only were condemned, and in 41 of these the udder was affected. Of the total cows slaughtered, 653 cases of indurated udder or other forms of chronic mammitis were found. Many of these cases might be called doubtful tubercle in the absence of microscopic examination.

Of the 1,922 heifers slaughtered, 7 were totally condemned, and 22 partially condemned. In 5 of the cases totally condemned the disease was present in the udder.

In dealing with emergency cases, all animals are prohibited from entering public abattoirs or private slaughterhouses unless accompanied by a veterinary certificate certifying that the animal is not suffering from a contagious disease, as scheduled under the Contagious Diseases (Animals) Act, except in cases of accident or consequent upon calving.

The number of diseased animals found at the different abattoirs varied according to the class or quality of animals slaughtered, *e.g.*, at Bellshill, Blantyre, and to a slight extent at Larkhall, there is a turnover of plain cattle for boning purposes. Disease fluctuates according to quality of these animals.

The whole system of Meat Inspection is linked up with the County Bacteriological Laboratory, and when necessary histological and bacteriological work is carried out by the Bacteriologist.

BUILDINGS.—The accommodation in the seven abattoirs remains the same as last year, and is more than sufficient for the work done.

A certain amount of painter work within the abattoirs required to be done, but, as in previous years, this had the attention of the abattoir staff during the quiet period, *viz.*, the months of June and July. At several of the abattoirs fencing and other necessary repairs were carried out by tradesmen.

PRIVATE SLAUGHTERHOUSES.—Ten licences were granted for the slaughter of cattle, sheep, and pigs, and one licence where sheep only were slaughtered, and the arrangement for the inspection of meat still continues as previously reported, these private slaughterhouses being organised under the latest meat regulations. The work of inspection has gone smoothly, and the trade has in no way been hampered.

Vans from adjacent counties and burghs continue to hawk the district, and these have been inspected regularly with satisfactory results. The regular inspections, both with regard to the local butchers and hawking vans inaugurated under the new Meat Regulations, have positively improved the quality of the meat in these districts.

These inspections are carried out in conjunction with the usual supervision of the public abattoirs and private slaughterhouses, including the inspection of shops, cold stores, &c. The butchers owning the private slaughterhouses still continue to contribute towards the expense of making the necessary inspections at their premises, and the amount paid to the Local Authority this year was £109, as compared with £107 for the previous year. This sum was sufficient to cover all the expense in this area of the County.

A necessary standard of protection with regard to unsound meat in the private slaughterhouse area has been maintained, similar to that in areas where public abattoirs exist.

By-laws for the private slaughterhouses have been prepared, so far as the Public Health Department is concerned, and it is hoped that these will be submitted to the Local Authority and the Scottish Board of Health at an early date, in order that the approval of the latter body may be obtained, and so put the inspection of the private slaughterhouses on a still more satisfactory basis.

The visits to private slaughterhouses and other places, outside abattoirs, were as follows:—

Private slaughterhouses,	1,040
Butchers' shops, vans, &c.,	3,471

PUBLIC HEALTH (MEAT INSPECTION) REGULATIONS (SCOTLAND), 1924,
ARTICLE 12.—No permits for meat stores were dealt with during the year.

COLD STORES.—In connection with the registration of Cold Stores, &c., as required by Article 13 of the Public Health (Meat) Regulations (Scotland), 1924, the Local Authority has made the necessary arrangements for same, and a register is being prepared. These places are being attended to, as previously, under the Public Health Act.

During the year a large number of inspections was made to cold stores, and, generally speaking, their contents were found sound and the apartments kept in a satisfactory condition. On one occasion, however, a consignment of tongues, which had been placed in cold storage was examined before use at the request of the owner, and it was found necessary to condemn 11 boxes containing 150 tongues. These had evidently gone wrong in storage on account of bad treatment when packing. The tongues were destroyed with the owner's consent.

UN SOUND MEAT.—At abattoirs and private slaughterhouses all condemnations have been carried out with owner's consent. The total weight of meat condemned outside of abattoirs (including private slaughterhouses, fleshers' shops, and at farms where special licences for slaughtering were authorised) amounted to 3,310 lbs.

All condemned meat and residue from the offal business—which is in the hands of the Local Authority—throughout the district, continues to be treated in the digester at Bellshill, producing two products, viz., technical tallow and residue for manure. A quantity of the condemned meat and organs is sold to a knackery in the district, as also is the residue from the Bellshill digester.

Periodic visits were made to the Middle Ward Hospitals, and advice given regarding the butcher-meat supplies. Assistance was also given in supervising the piggeries at Motherwell and Bellshill Hospitals, and in most cases the fattened pigs were turned into bacon by the Abattoir Staff at Bellshill, for the use of the various Middle Ward Institutions.

STAFFING.—During the year Mr. George Prentice, Superintendent and Assistant Meat Inspector at Bellshill, was appointed to a similar position in Airdrie Burgh Slaughterhouse. Mr. James Ballantyne, Larkhall was appointed Superintendent and Detention Officer to Dumfries Slaughterhouse. These vacancies enabled promotion being

made in respect of younger members of the staff. To fill up the Bells-hill vacancy, Mr. James Macaulay was appointed Assistant Superintendent and Meat Inspector. Mr. Macaulay is a fully qualified Meat Inspector and also holds the Certificate of the Scottish Board of Health certifying his qualifications. In place of Macaulay an assistant was transferred from Shotts to Bellshill, and on account of the reduced turnover at Shotts, this vacancy was not filled. At Larkhall a young member was advanced to Ballantyne's position as Detention Officer, and another apprentice engaged.

It might also be mentioned that James Brown, who was a long time in the service at Bellshill, left on his own accord and his position was not filled.

Report of the Sanitary Inspector.

HOUSING.

The administrative procedure during the year 1928, which was summarised in the information supplied to the Scottish Board of Health, in terms of their Regulations under the Housing Acts, is given in the following tabular statement and subsequent paragraphs :

Number of dwellings inspected,	1,381
Number of houses found unfit for human habitation, ...	287
Representations to Local Authority,	151
Closing Orders made,	151
Number of dwellings dealt with by Closing Orders, ...	1,014
Defects remedied without making Closing Orders, ...	—
Work completed,	40
Work in progress,	4
Work in negotiation,	36

No one-apartment houses were erected during the year, but the sanction of the Local Authority was given, in terms of Section 111 of the Housing (Scotland) Act, 1925, to the erection of 3 two-apartment dwellings by private builders, and of 66 two-apartment houses by the Local Authority.

No schemes under Part II of the Housing Act were in contemplation.

Overcrowding.—Despite the large number of new houses erected by the Local Authority and others throughout the Middle Ward District sub-letting of dwellings is still prevalent, and, in certain areas, even on the increase. Indeed, in many instances previous tenants of modern houses who were either ejected for non-payment of rent, or found the rents too much for them to pay, have gone to other premises as sub-lets. A considerable number of these cases is no doubt due to lack of means, but there are some whose income is amply sufficient to maintain proper housing accommodation for their family. Apart from the moral and other aspects of the question,

the duplication of the numbers of families using common conveniences is conducive to a lowered standard of sanitation. During the year several cases of overcrowding were dealt with and Court proceedings were instituted in nine instances. In seven cases fines from 10s. to 15s. were imposed, and in the remaining two cases—a family of twelve in a kitchen, and a family of ten also in a kitchen—the Sheriff continued them *sine die*.

SLUM CLEARANCE.—Further good progress was made towards the closure of insanitary dwellings, and 151 representations were made to the Local Authority, under Section 6 of the Housing (Scotland) Act, 1925, that the following 1,024 dwellings were in a state so dangerous or injurious to health as to be unfit for human habitation, and, except in the case of 6 dwellings at Waterloo Row, Blantyre, a Closing Order was made in every instance:—

STRATHAVEN.—12-14 *Strait Close*, 3 two-apartment and 1 three-apartment dwellings. Three of the houses have been vacated, the tenants having found other accommodation.

EAST KILBRIDE.—6 *Hunter Street*, 1 three-apartment dwelling; 7 *Hunter Street*, 1 three-apartment dwelling; 8 *Montgomery Street*, 4 two-apartment dwellings; 26 *Maxwellton*, 2 two-apartment dwellings; 11 *Maxwell Street*, 1 four-apartment dwelling; 30-32 *Parkhall Street*, 3 one-apartment and 2 two-apartment dwellings; 7-9 *Glebe Street*, 3 one-apartment dwellings; 18 *Glebe Street*, 2 one-apartment and 2 two-apartment dwellings; and 20-22 *Glebe Street*, 2 three-apartment dwellings. In the latter instance an Appeal was made by the owner, who subsequently withdrew same, and the Closing Order became operative. Of all the above dwellings six have so far been vacated.

STONEHOUSE.—9 *Green Street*, 1 two-apartment dwelling, which has now been vacated.

BLANTYRE.—271 *Main Street*, 1 three-apartment dwelling; 269 *Main Street*, 1 three-apartment dwelling; 24-26 *Watson Street*, 1 one-apartment dwelling and 11 two-apartment dwellings; 16-22 *Watson Street*, and 101-107 *Broompark Road*, 5 one-apartment and 4 two-apartment dwellings; 18-22 *Hunthill Road*, 3 one-apartment

and 1 two-apartment dwellings; 1-7 *Parkneuk Road*, 3 one-apartment and 4 two-apartment dwellings; and *Hartfield*, 4 one-apartment and 2 two-apartment dwellings. All the above houses have been demolished. 11-13 *School Lane*, 2 two-apartment dwellings; and 1-12 *Craig Row*, 11 one-apartment and 1 two-apartment dwellings. These houses have been vacated and are partly demolished. 13 *Greenside Street*, 9 one-apartment dwellings; *Allison Place*, 24 one-apartment, 9 two-apartment and 4 three-apartment dwellings; 6-12 *School Lane*, 3 one-apartment and 5 two-apartment dwellings; 64-66 *Hunthill Road*, 2 one-apartment and 2 two-apartment dwellings; and 8-10 *Parkneuk Road*, 1 two-apartment and 2 three-apartment dwellings. The whole of these dwellings have been vacated. *Dalziel Place*, 13 one-apartment and 6 two-apartment dwellings. These houses were all vacated, but towards the close of the year were again let to new tenants without the sanction of the Local Authority, and Court proceedings have been instituted against the owners. 37-47 *Glasgow Road*, 7 two-apartment dwellings. An appeal was lodged against the Closing Order, and the owner's agents subsequently intimated that they did not intend to further oppose the Closing Order as regards the six ground-floor houses, and that they would submit proposals for rendering the upper-floor house (No. 41) fit for human habitation. The appeal was accordingly dismissed so far as the six ground-floor houses were concerned, and continued *sine die* in respect of the upper-floor house. A detailed note of repairs was then submitted by the owners, but on further consideration they withdrew the appeal. All the ground-floor houses have been vacated. *Waterloo Row*, 4 one-apartment, 20 two-apartment, 4 three-apartment, and 3 four-apartment dwellings. After inspection for the preparation of a Representation a disastrous fire broke out at this property and seventeen dwellings were gutted. Arrangements were immediately made, with the sanction of the Committee, to remove the tenants and their effects into houses at the new Improvement Scheme at Viewfield nearby. A Sub-Committee afterwards made an inspection of Waterloo Row and decided that the eight houses remaining on the ground-floor at Nos. 12, 13, 15, and 17, were unfit for human habitation, and a Closing Order was subsequently made in respect of these dwellings, which have now been vacated, and partly demolished. Most of the tenants of the above dwellings accepted accommodation offered in the Auchentraith and Viewfield Improvement Schemes. 48-50 *Watson Street*, 1 one-apartment and 1 three-apartment dwellings. An appeal was

lodged against the Closing Order in respect of these two houses, and the case was continued in Court in view of the undertaking given by the owner's agent that dwelling No. 48, which is the more unsatisfactory of the two houses, would not be occupied for human habitation, and that he would submit proposals for improvements upon the house No. 50. The matter is still in hand.

BELLSHILL.—1-4 *Union Street*, 4 one-apartment dwellings; 11 *Motherwell Road*, 4 one-apartment dwellings; 118 *Main Street*, 2 one-apartment and 1 two-apartment dwellings; 292 *Main Street*, 1 one-apartment dwelling; 280-284 *Main Street*, 3 one-apartment and 2 two-apartment dwellings; 253-257 *Main Street*, 2 one-apartment, 2 two-apartment, and 1 three-apartment dwellings; 296 *Main Street*, 1 two-apartment and 1 four-apartment dwellings; 75-83 *Main Street*, 7 two-apartment dwellings; *Old Orbiston Rows*, 10 one-apartment and 22 two-apartment dwellings; *Crofthead Cottage*, 6 one-apartment, 1 two-apartment, and 1 three-apartment dwellings; 553 *Main Street*, *Mossend*, 2 one-apartment dwellings; and *Shadewell Place*, 4 one-apartment and 1 two-apartment dwellings. All the occupants of the above houses were offered accommodation in the Orbiston Improvement Scheme, and the old dwellings have now been demolished. 8 *Motherwell Road*, 3 one-apartment and 2 two-apartment dwellings; 32-38 *Main Street*, 2 one-apartment, 5 two-apartment, and 1 three-apartment dwellings; 40-48 *Main Street*, 2 one-apartment, 3 three-apartment, and 1 three-apartment dwellings; 120-124 *Main Street*, 1 one-apartment and 2 two-apartment dwellings; 91 *Main Street*, 2 one-apartment dwellings; 338 *Main Street*, 4 one-apartment dwellings; 48-50 *North Road*, 1 one-apartment and 2 two-apartment dwellings; 12-15 *Pollock Street*, 2 one apartment dwellings; 2 *Bowling-Green Street*, 3 one-apartment and 1 two-apartment dwellings; 63-71 *Crossgates Street*, 3 one-apartment and 3 two-apartment dwellings; 45-47 *Crossgates Street*, 3 one-apartment, and 2 two-apartment dwellings; and 4-6 *Crossgates Street*, 5 one-apartment, 4 two-apartment, and 1 three-apartment dwellings. An appeal was lodged in respect of three of the latter dwellings, and a plan and proposals for rendering the houses fit for human habitation were approved of. The appeal was continued *sine die* to enable the owner to carry out his proposals. All the other houses have been vacated and most of the occupants have been given accommodation in the Orbiston Improvement Scheme. 267-273 *Main*

Street, 4 two-apartment dwellings. These houses are still occupied. *Hamilton's Land, Carnbroe*, 7 one-apartment and 4 two-apartment dwellings. All the houses were vacated and seven have been demolished. The tenants removed to the Improvement Scheme at Orbiston.

HOLYTOWN.—175-177 *Main Street*, 4 one-apartment dwellings; and No. 8 *Pit House*, 1 two-apartment dwelling. These houses were demolished after the occupants had removed to Holytown Improvement Scheme. 13-17 *Main Street*, 5 two-apartment dwellings; 131 *Main Street*, 2 one-apartment and 2 two-apartment dwellings; 149 *Main Street*, 1 three-apartment dwelling; 22-32 *Jerviston Street*, 4 one-apartment and 2 two-apartment dwellings; 12 *Jerviston Street*, 1 two-apartment dwelling; and 2-10 and 14 *Jerviston Street*, 2 one-apartment, 4 two-apartment, and 1 three-apartment dwellings. The tenants of these houses removed to Holytown Improvement Scheme.

NEWARTHILL.—88-114 *Church Street*, 9 one-apartment and 3 two-apartment dwellings; and 80-84 *Church Street*, 3 two-apartment dwellings. These houses have all been demolished, the tenants being housed in the Holytown and Carfin Improvement Schemes. 388-398 *High Street*, 4 one-apartment and 2 two-apartment dwellings; 269-271 *High Street*, 1 one-apartment and 1 two-apartment dwellings; 299-305 *High Street*, 4 one-apartment dwellings; 176 *High Street*, 1 one-apartment dwelling; 319-331 *High Street*, 6 one-apartment and 1 two-apartment dwellings; 273-283 *High Street*, 5 one-apartment and 1 two-apartment dwellings; and 71-77 *Church Street*, 4 one-apartment and 2 two-apartment dwellings. All the above houses except five have been vacated and the occupants removed to the Improvement Schemes at Holytown and Carfin.

UDDINGSTON.—74-88 *Old Mill Road*, 9 one-apartment and 4 two-apartment dwellings; 111-121 *Old Mill Road*, 6 one-apartment dwellings; 122-134 *Old Mill Road*, 7 two-apartment dwellings; and 33-37 *Greenrigg Street*, 2 one-apartment and 1 two-apartment dwellings. These houses are still all occupied, but the tenants will be offered dwellings in the Improvement Schemes when these are ready for occupation.

CAMBUSLANG.—21-27 *Vicarland Road*, 4 two-apartment dwellings; 98-102 *Lightburn Road*, 3 two-apartment dwellings; 39 *Cadoc Street*, 1 two-apartment dwelling; and 21 *Tabernacle Street*, 2 two-apartment and 1 three-apartment dwellings. These houses have all been demolished and the tenants removed to Overton Road Improvement Scheme. *Burnbrae*, 1 two-apartment dwelling; *The Deans*, 1 one-apartment dwelling; 2 *Westburn Road*, 2 one-apartment dwellings; 9-11 *Vicarland Road*, 2 two-apartment dwellings; 14 *Tabernacle Street*, 1 three-apartment dwelling; and 400 *Hamilton Road*, 2 two-apartment dwellings. With the exception of one house in the last-mentioned property all the above dwellings have been closed and the occupants accommodated at the Improvement Scheme at Overton Road. 3-63 *Dunlop Street, Newton*, 31 two-apartment houses. A letter on behalf of the owners was submitted to the Committee stating that as the dwelling No. 3 was empty the Company proposed that this house would be put into a habitable condition and that, if the Committee were of opinion that the repairs carried out rendered the house fit for human habitation, the other houses would thereafter be dealt with in a similar manner, with a view to the Closing Order being withdrawn. A Sub-Committee afterwards made an inspection of dwelling No. 3 and reported that the repairs and improvements carried out on the house referred to could be regarded as satisfactory and as rendering the house fit for habitation, and they agreed that if the whole of the remaining thirty houses were repaired according to the same specification as No. 3, with, however, a further improvement relative to the taking down of bed partition walls suggested by the factor, they would be prepared to recommend that the Closing Order should be determined. The work on these is presently in hand and, when completed, will be inspected by the Committee.

OVERTOWN.—1-36 *Orchard Row*, 36 two-apartment dwellings. 22 of the houses have been demolished, 7 are vacated, and the remainder are still occupied. 1-20 and 2-16 *Boyd's Rows*, 20 one-apartment, 13 two-apartment, and 1 four-apartment dwellings. Seventeen of the houses have been vacated. 1-21 and 43-46 *Wemysshill Row*, 25 one-apartment dwellings. At Nos. 1-21 ten of the houses are still occupied, the remainder having been demolished. All the remaining tenants will be offered accommodation in the Overtown Improvement Scheme presently nearing completion.

LARKHALL.—13-15 *Millheugh*, 2 one-apartment dwellings; 10-16 and 26-28 *Millheugh*, 10 one-apartment dwellings; 31-49 *Raploch Road*, 5 one-apartment, 3 two-apartment, and 2 three-apartment dwellings. 23-29 *Raploch Road*, 4 one-apartment and 2 two-apartment dwellings; and 2 *High Pleasance*, 2 one-apartment dwellings. All the above houses have been vacated and partly demolished. 34 *Low Glengowan*, 1 two-apartment dwelling; 36-38 and 48-50 *Low Glengowan*, 4 one-apartment dwellings; 35 *Hamilton Street*, 1 one-apartment dwelling; 17A *Hamilton Street*, 1 two-apartment dwelling; 20A *Drygate Street*, 3 one-apartment dwellings; 3-5 *Drygate Street*, 2 one-apartment, 1 two-apartment, and 1 three-apartment dwellings; 91 *London Street*, 2 one-apartment dwellings; 54-56 *Wellgate Street*, 2 one-apartment and 1 three-apartment dwellings; and 5-7 *Old Croft*, 2 one-apartment dwellings. All the above houses have been vacated. 89-100, 117-128, 32-39, 40-55, and 56-63 *Meadowhill*, 44 one-apartment and 6 two-apartment dwellings. Seven of the houses are still occupied, the remainder being partly demolished. 9-13 *Muir Street*, 3 one-apartment dwellings. Two of these houses have been vacated. 6 *Millheugh*, 1 one-apartment dwelling; 18-24 *Millheugh*, 4 one-apartment dwellings; 40-44 *Millheugh*, 1 one-apartment and 2 two-apartment dwellings; 56 *Raploch Road*, 2 one-apartment dwellings; 54 *Raploch Road*, 1 one-apartment and 1 two-apartment dwellings; 41 *Raploch Street*, 8 one-apartment and 1 two-apartment dwellings; 99 *Wellgate Street*, 3 one-apartment and 1 two-apartment dwellings; 87-89 *Wellgate Street*, 2 two-apartment dwellings; 16 *Hamilton Street*, 2 one-apartment dwellings; 26 *Hamilton Street*, 1 one-apartment dwelling; 16-22A *Drygate Street*, 6 one-apartment dwellings; 7-9 *Drygate Street*, 2 one-apartment dwellings; *Hyndland Cottage*, 2 one-apartment dwellings; 1-14 *High Shawsburn*, 10 one-apartment and 4 two-apartment dwellings; *Old Row, Birkenshaw*, 2 one-apartment and 1 two-apartment dwellings; and *Gray's Land, Birkenshaw*, 4 one-apartment dwellings. All the above dwellings are still occupied. 1-28 and 35-60 *Dunlop Place, Ashgill*, 33 one-apartment and 13 two-apartment dwellings. Only one house remains occupied, the others having been partly demolished. Most of the tenants of the houses above enumerated were removed to the Improvement Schemes at Hareleeshill, Strutherhill, and Ashgillhead, and those remaining will be offered accommodation in the Strutherhill Scheme, presently nearing completion.

RIGGEND.—1 one-apartment dwelling at No. 14. This house is now empty.

CARMYLE and TOLLCROSS.—*Old Pit Row*, 3 two-apartment dwellings; 1-39 *Kenmuir Rows*, 24 one-apartment and 13 two-apartment dwellings; 47-53 *Causewayside Street*, 5 one-apartment, 5 two-apartment, and 1 three-apartment dwellings; 39A-F *Causewayside Street*, 6 two-apartment dwellings; 65a-e *Causewayside Street*, 9 one-apartment dwellings; 81A-F *Causewayside Street*, 6 two-apartment dwellings; and *Mud Row*, 2 one-apartment and 31 two-apartment dwellings. Of all the above dwellings, 50 are still occupied, and alternative accommodation will be available at the Improvement Scheme at Carmyle Station, presently in course of erection.

BAILLIESTON.—16, &c., *Buchanan Street*, 12 one-apartment and 4 two-apartment dwellings. These houses have all been demolished. 2 *Buchanan Street*, 2 one-apartment dwellings; 165-175 *Buchanan Street*, 3 one-apartment, 2 two-apartment, and 1 three apartment dwellings; 10D and 16-24 *Buchanan Street*, 6 one apartment and 5 two-apartment dwellings; and 50 D and E *Easterhouse Road*, 2 two-apartment dwellings. All the above dwellings have been vacated, and accommodation for the tenants provided at Crosshill Improvement Scheme.

GLENBOIG.—11-19 *Rockbank*, 9 two-apartment dwellings; *Whitedykes*, 3 one-apartment and 1 two-apartment dwellings; *Whitedykes Cottage*, 1 two-apartment dwelling; *Row Cottage*, 1 three-apartment dwelling; 5-12 *Mossbank*, 8 two-apartment dwellings; and 1-10 *Hillbank*, 10 one-apartment dwellings. All the above houses are still occupied.

CLELAND.—2, &c., *Scott's Land*, 2 one-apartment and 1 two-apartment dwellings; and *Pottery Buildings*, 12 one-apartment and 9 two-apartment dwellings. These houses are all vacated, the tenants being accommodated at Holytown and Springhill Improvement Schemes, and elsewhere.

SALSBURGH.—*Main Street*, 2 one-apartment and 2 two-apartment dwellings. Three of the houses have been vacated.

APPEALS WITHDRAWN, &c.—The appeals lodged by the owners of properties at 13 and 15-27 *North Road, Bellshill*, referred to on page 358 of last Annual Report have been withdrawn and the houses vacated. The appeals in connection with the dwellings at *Rosebank Place*, and 1-3 *Church Street, Cambuslang*, referred to on page 360 of last Annual Report were withdrawn. In the latter instance two of the houses having been repaired the Closing Order in respect of same was determined. The remaining tenants in both properties have not yet been removed, as the new Improvement Scheme houses are not yet available. *Cityside, Cleland*, referred to on page 362 of last Annual Report. The appeal in his case was also withdrawn, and four of the houses have been vacated. *Napier's Square, New Stevenston*, referred to on page 359 of last Annual Report. Towards the close of the year a Sub-Committee inspected the progress which had been made with the repairs and improvements at this property, but found that the improvements had not been entirely completed. They decided that the case should not be finally taken out of Court until the repairs and improvements had been fully completed and in accordance with the arrangement come to by the owner.

DEMOLITION ORDERS.—In terms of Section 10 (1) of the Housing (Scotland) Act, 1925, orders for the demolition of the following properties were made by the Local Authority, and the necessary work was carried out in every case, viz. :—25-27 *Green Street, Bothwell*, 3 houses; 22 *Green Street, Bothwell*, 6 houses; 30 *Green Street, Bothwell*, 2 houses; 22-28 *Hamilton Road, Bellshill*, 11 houses; *Old Orbiston Rows, Bellshill*, 32 houses, and *Forrest Place, High Blantyre*, 57 houses. In the latter case the work was done at the expense of the Local Authority, as the owners had left this country and abandoned the property.

DETERMINATION OF CLOSING ORDERS.—20 *Hamilton Road, Bellshill*, referred to on page 358 of last Annual Report. The owners converted the two one-apartment dwellings into a house of two apartments and remedied the defects set forth in the Representation of the Medical Officer of Health. 1-3 *Church Street, Cambuslang*, referred to on page 360 of last Annual Report. An arrangement was come to with the owner under which it was agreed that four of the six basement dwellings would be permanently closed and the other two dwellings rendered fit for human habitation. The repairs were duly carried out,

and, after an inspection of the two dwellings, it was reported to the Committee that the conditions now existing in these houses were such that determination of the Closing Order could not be successfully refused. In terms of Section 8 (5) of the Housing (Scotland) Act, the Committee resolved to determine the Closing Orders made in respect of both the above properties, so far as affecting the dwellings which have been repaired.

RE-OCCUPYING OF CLOSED DWELLINGS.—Several applications were received during the year for permission to re-occupy, as workshops, meeting places, food stores, etc., dwellings which had been dealt with by Closing Order, but in only two instances was the necessary sanction given by the Committee. In other two instances the permission of the Local Authority was not sought, and “closed” houses were found converted into workshops. Legal proceedings are being instituted in these cases.

Insanitary Dwellings.

The Department have continued to press for the introduction of modern domestic and sanitary conveniences, and, during the year, numerous inspections were made, and meetings held with the owners of properties. Difficulties are still being experienced in view of the continued high cost of carrying out improvements, but further progress has been made. The properties dealt with are briefly referred to as under :—

151-155 (*new numbers 359-369*) *Main Street, High Blantyre*.—The 5 one-apartment and 3 two-apartment dwellings without an adequate water supply and water-closet accommodation, referred to on page 362 of last Annual Report, are still being dealt with.

140-158 *Main Street and 2-4 School Lane, High Blantyre*.—A two-storey, stone-built tenement, comprising 2 one-apartment, 5 two-apartment, 2 three-apartment, 1 four apartment, and 1 five-apartment dwellings without adequate water supply and water-closet accommodation, referred to on page 362 of last Annual Report. The three proposed additional water-closets accepted by the Committee, without prejudice, have not yet been erected.

Craighead Rows, Blantyre.—No arrangement has yet been come to with the owners of these three rows of 106 two-apartment single-storey, stone-built dwellings as to improved water-closet accommodation, referred to on page 362 of last Annual Report.

105-119 *Stonefield Road, Blantyre.*—2 one-apartment and 6 two-apartment attic dwellings without water supply, referred to on page 362 of last Annual Report. One house was vacated during the year, leaving four still occupied.

5-7 *John Street, Blantyre.*—12 one-apartment and 4 two-apartment dwellings, referred to on page 263 of last Annual Report. The provision of adequate water-closet accommodation, and an inside sink and water supply for each dwelling is still under consideration.

4-14 *Alpine Street, Blantyre.*—24 one-apartment and 6 two-apartment dwellings, and 16-26 *Alpine Street*, 20 one-apartment and 10 two-apartment dwellings without adequate water-closet accommodation and an inside sink and water supply for each dwelling, referred to on page 363 of last Annual Report. No further action was taken during the year.

7-15 *Watson Street, Blantyre.*—A two-storey tenement, comprising 16 one-apartment dwellings with inadequate water-closet accommodation, referred to on page 336 of last Annual Report. The four additional water-closets accepted by the Committee, without prejudice, have now been provided.

3-13 *Greenside Street, Blantyre.*—27 one-apartment dwellings without adequate water-closet accommodation, referred to on page 364 of last Annual Report. A Closing Order was made under the Housing (Scotland) Act, 1925, in respect of nine of the dwellings, and at the end of the year a total of 15 dwellings were empty and boarded up. The remainder of the property will probably also be dealt with by Closing Order, at an early date.

93-99 *Broompark Road and 7 Watson Street, Blantyre.*—2 one-apartment, 3 two-apartment, and 2 three-apartment dwellings with inadequate water-closet accommodation, referred to on page 364 of last Annual Report. The owner has converted the two houses on the ground

floor into shops, leaving 1 one-apartment, and 4 two-apartment dwellings, for which two water-closets are provided.

75-77 *Auchenraith Road, Blantyre*.—A two-storey tenement comprising 16 one-apartment and 2 two-apartment dwellings, referred to on page 364 of last Annual Report. The question of providing adequate water-closet accommodation has not yet been finally adjusted.

51-59 *Glasgow Road, Blantyre*.—12 one-apartment and 6 two-apartment tenement dwellings, referred to on page 364 of last Annual Report. The plan lodged showing four proposed additional water-closets, which with the existing four closets would give eight closets for the eighteen occupancies, was adjusted with the owners, and accepted by the Committee without prejudice. The work had not been commenced at the close of the year.

262-272 *Main Street, High Blantyre*.—No proposals have yet been received for the necessary additional water-closet accommodation at this two-storey tenement, comprising 3 one-apartment and 4 two-apartment dwellings, referred to on page 364 of last Annual Report.

4-8 *Greenside Street, Blantyre*.—A two-storey tenement, comprising 4 one-apartment and 3 two-apartment dwellings, and a single-storey row of 2 one-apartment and 2 two-apartment dwellings, without adequate water-closet accommodation, referred to on page 365 of last Annual Report. The three additional water-closets accepted by the Committee, without prejudice, were erected in accordance with the plan submitted.

Allison Place, Blantyre.—A two-storey tenement with attics, comprising 26 one-apartment, 8 two-apartment, and 4 three-apartment dwellings, referred to on page 365 of last Annual Report. The property was dealt with by Closing Order, and the dwellings were all vacated.

27-31 *School Lane, High Blantyre*.—A two-storey tenement, comprising 2 one-apartment and 4 two-apartment dwellings, without adequate water-closet accommodation. The owner was asked to provide additional water-closets.

Douglas Park Square, Bellshill.—Referred to on page 365 of last Annual Report. The conversion of the single-apartment dwellings into houses of two apartments has not yet been commenced, as none of the tenants has removed.

Bothwellpark Rows.—Referred to on page 365 of last Annual Report. The question of water-closet accommodation is still in abeyance, owing to the lack of sewerage facilities.

Cockhill Place, Bothwellpark.—11 two-apartment dwellings, referred to on page 366 of last Annual Report. The question of providing water-closet accommodation and abolishing the existing privy-midden is still in abeyance, owing to the lack of satisfactory sewerage facilities.

Hattonrigg Terrace, Bellshill.—32 two-apartment dwellings, referred to on page 366 of last Annual Report. Negotiations are again proceeding for the introduction of an inside sink and water supply to each dwelling.

148 Main Street, Bellshill.—A water-closet was provided, and the existing pail privy abolished at the three-apartment dwelling referred to on page 366 of last Annual Report.

Kowantree Dairy, Uddingston.—After negotiations, the owners of this two-apartment dwelling provided an inside sink, water supply, and water-closet, and abolished the existing privy.

24A-30 Bellshill Road, Uddingston.—A two-storey tenement, comprising 3 two-apartment, 2 three-apartment, and 2 four-apartment dwellings, with inadequate and defective trough-closet accommodation. After negotiations, the owners submitted a plan showing the provision of a separate water-closet for each of five dwellings, and one water-closet for the two remaining dwellings at which the structural conditions did not permit of the provision of separate accommodation. The proposals were accepted, and the work has been completed.

Mains Shaw Cottage, Uddingston.—The want of inside sink and water supply at this three-apartment dwelling was taken up with the owners, and these conveniences were introduced.

50-66 *Stevenston Street, New Stevenston*.—16 one-apartment, 9 two-apartment, and 1 three-apartment dwellings, referred to on page 366 of last Annual Report. No further improvements were carried out during the year.

44-48 *Stevenston Street, New Stevenston*.—2 one-apartment, 2 two-apartment, and 1 three-apartment dwellings, referred to on page 367 of last Annual Report. After service of the Statutory Notice, the owner submitted a plan showing the conversion of the existing houses into 1 two-apartment, 1 three-apartment, and 1 four-apartment dwellings, each with an inside sink and water supply, and the provision of one additional water-closet. The proposals were accepted by the Committee, without prejudice, and the work has been completed.

Arncliffe, New Stevenston.—1 one-apartment and 1 three-apartment dwellings. The owner introduced an inside water-closet to each dwelling.

Lauchope Place, Chapelhall.—18 one-apartment and 13 two-apartment dwellings, referred to on page 302 of last Annual Report. After further pressure, and the discussion of alternative schemes of improvement, the owner submitted proposals for the introduction of an inside sink and water supply to each of the 12 one-apartment dwellings in the middle row, and the erection of water-closet accommodation there in the proportion of one closet to every two dwellings. The Committee accepted these proposals, without prejudice, and the work is proceeding.

72-76 *Main Street, Chapelhall*.—2 one-apartment and 1 three-apartment dwellings, referred to on page 367 of last Annual Report. Nothing was done during the year towards the provision of adequate water-closet accommodation.

Main Street, Chapelhall.—The owner of 1 two-apartment and 1 five-apartment dwellings was asked to provide water-closet accommodation, and the matter is still in hand.

177-179 *Campsie Terrace, Newarthill*.—Owing to the death of the owner, proper domestic and sanitary conveniences have not yet been introduced to the two single-storey rows, comprising 12 two-apartment dwellings, referred to on page 367 of last Annual Report.

2-20 *Campsie Terrace, Newarthill*.—3 one-apartment, 8 two-apartment, and 1 three-apartment dwellings, referred to on page 367 of last Annual Report. Promised proposals not having been received, the Committee approved of the service of the Statutory Notice requiring the provision of inside sinks, water supply, and water-closet accommodation.

131-137 *High Street, Newarthill*.—After negotiations, a water-closet was provided for these 2 three-apartment dwellings, and the existing privy-midden abolished.

171-175 *High Street and 1 Church Street, Newarthill*.—2 one-apartment and 4 two-apartment dwellings. Negotiations for the provision of water-closet accommodation and the abolition of the existing foul privy-midden having failed, the Committee authorised service of the Statutory Notice.

25 *High Street, Newarthill*.—A water-closet and bath were provided in a portion of the scullery at this three-apartment dwelling.

106-110 *High Street, Newarthill*.—2 two-apartment and 1 three-apartment dwellings. The owner submitted proposals for the erection of two water-closets for the three dwellings, and the introduction of an inside sink and water supply to each of the two-apartment dwellings, the three-apartment dwelling already having an inside sink and water supply. The water-closets were erected, and the inside sinks and water supply are in hand.

284-288 *High Street, Newarthill*.—2 two-apartment and 1 three-apartment dwellings without water-closet accommodation. The owner proceeded with the erection of one water-closet and a wash-house without obtaining the consent of the Department. He was informed that one water-closet was inadequate, and, after pressure, another closet was provided.

Bardykes Terrace, Cambuslang.—12 two-apartment and 4 three-apartment dwellings, referred to on page 368 of last Annual Report. The work of providing a new scullery fitted with inside sink, water supply, wash-tub, boiler, bath, and water-closet, for each dwelling has been completed.

6-8 *Clydeford Road, Cambuslang*.—Two three-storey tenements, each comprising 5 one-apartment and 8 two-apartment dwellings, referred to on page 369 of last Annual Report. In accordance with the arrangement to reduce the number of occupancies instead of providing additional water-closet accommodation, two of the one-apartment dwellings, which were vacated, were converted into a two-apartment house.

3 *Church Street, Cambuslang*.—A four-storey tenement, comprising 14 one-apartment and 4 two-apartment dwellings, referred to on page 369 of last Annual Report. The provision of adequate water-closet accommodation remained in abeyance pending the result of the appeal against the Closing Order in respect of the basement dwellings.

4 *Colebrooke Street, Cambuslang*.—A three-storey tenement containing 6 one-apartment and 5 two-apartment dwellings, referred to on page 369 of last Annual Report. The question of providing adequate water-closet accommodation has not yet been finally dealt with.

Clydesdale Rows, Wishaw.—2 one-apartment, 42 two-apartment, 2 three-apartment, and 3 four-apartment dwellings, referred to on page 369 of last Annual Report. 36 dwellings were still occupied at the end of the year.

Ladies' Row, &c., Morningside.—17 one-apartment and 41 two-apartment dwellings forming Ladies' Row, Binnie's Row, New Row, and Torbush Row, Morningside, referred to on page 370 of last Annual Report. All the dwellings were vacated, and, at the end of the year, only four houses at New Row remain to be demolished.

Mitchell Place, Morningside.—29 two-apartment dwellings, and *School Row, Chapel*—6 two-apartment dwellings, referred to on page 370 of last Annual Report. Difficulties as to sewage disposal still preclude the provision of modern sanitary conveniences at these properties.

2-46 *Hope Street, &c., Newmains*.—The work of introducing an inside sink and water supply to each of these 21 one-apartment and 2 two-apartment dwellings, referred to on page 370 of last Annual

Report, was completed, and the question of providing like conveniences at *Comely Bank*, 4 dwellings; *Whitestripe*, 2 dwellings; 2-13 *Store Row*, 11 dwellings; *Stable Court*, 7 dwellings; and *Stable Row*, 14 dwellings, is still in hand. The 14 dwellings at Nos. 16 to 29 *Stable Row* were all vacated, and demolished.

Stane Place, Shotts.—72 one-apartment dwellings, referred to on page 371 of last Annual Report. No further conversions were made during the year, and the owners are still being pressed in the matter.

190-196 *Hamilton Street, Torbothie*.—4 two-apartment dwellings, referred to on page 308 of last Annual Report. No further progress has been made towards the provision of water-closet accommodation.

Prentice's Land, Old Station, Overtown.—1 one-apartment, 7 two-apartment, and 1 three-apartment dwellings, referred to on page 371 of last Annual Report. No proposals having been received the Statutory Notice was served, and the owner thereafter submitted a plan showing the provision of four water-closets, also an inside sink and water supply for each of three dwellings not already so provided for, the one-apartment dwelling to be shut up when vacated. The proposals were accepted by the Committee, without prejudice, but the work had not been commenced at the end of the year.

Glenview, Main Street, Overtown.—2 one-apartment dwellings without water-closet accommodation, referred to on page 371 of last Annual Report. Negotiations for the necessary accommodation having failed, the Statutory Notice was served. A plan was then submitted showing the provision of a water-closet for each dwelling, and these have been erected.

Gladstone Place, Overtown.—1 one-apartment, 3 two-apartment, and 1 five-apartment dwellings, without water-closet accommodation, referred to on page 371 of last Annual Report. After service of the Statutory Notice, the owners submitted a plan showing three proposed water-closets. The proposals were accepted by the Committee, but the work had not been commenced at the end of the year.

Girdwood's Land, Overtown.—4 one-apartment and 4 two-apartment dwellings without inside sinks, water supply, and water-closet accommodation, referred to on page 371 of last Annual Report. The

owner submitted a plan showing the provision of an inside sink and water supply for each dwelling and four water-closets for the eight occupancies. After certain adjustments, the proposals were approved of, and the improvements have since been completed.

Thatch Cottage, Overtown.—A new water-closet and scullery-wash-house were provided at this two-apartment dwelling, referred to on page 371 of last Annual Report.

Hawthorn Cottage, Overtown.—1 one-apartment and 1 two-apartment dwellings, referred to on page 371 of last Annual Report. Two water-closets, and an inside sink and water supply for the one-apartment dwelling, were provided. The two-apartment dwelling already had an inside sink and water supply.

Co-operative Buildings, Main Street, Overtown.—A water-closet was provided for each of these 2 two-apartment dwellings, referred to on page 371 of last Annual Report.

Pine Place and Pine Cottage, Overtown.—2 one-apartment and 6 two-apartment dwellings without inside sinks, water supply, and water-closet accommodation, referred to on page 371 of last Annual Report. The owner submitted a plan showing the provision of an inside sink and water supply for each of the 6 two-apartment dwellings, and three new water-closets there, the 2 one-apartment dwellings to be converted into two wash-houses, two coal-cellars, and a store. The proposals were accepted, and the work has all been completed.

Overtown Store, Overtown.—After service of the Statutory Notice, a water-closet was provided at this three-apartment dwelling, referred to on page 371 of last Annual Report.

Hamilton's Land, Overtown.—6 one-apartment and 8 two-apartment dwellings, referred to on page 371 of last Annual Report. Proposals were approved of for the provision of eight water-closets, and an inside sink and water supply for each dwelling, and the work has been completed. Each dwelling was also provided with a separate dustbin, and the existing privies and ashpit removed.

Stone Rows, Overtown.—11 one-apartment and 12 two-apartment dwellings without inside sinks, water supply, and water-closet accommodation, referred to on page 371 of last Annual Report. An inside sink, water supply, water-closet, and dustbin have been provided for each dwelling, and the existing privies and ashpit demolished.

Bloomfield Cottage, Overtown.—A water-closet has been provided at this three-apartment dwelling, referred to on page 371 of last Annual Report.

Glengoven Cottage, Overtown.—A water-closet has been installed in the scullery of each of these 1 two-apartment, and 1 four-apartment dwellings, referred to on page 371 of last Annual Report.

Overtown.—Negotiations are still proceeding for the provision of proper domestic and sanitary conveniences at the following properties referred to on page 371 of last Annual Report, viz. :—*Victoria Place*, 12 two-apartment dwellings; *Hayfield Place*, 3 two-apartment and 1 five-apartment dwellings; *Meadowview*, 2 one-apartment and 2 two-apartments dwellings; *Bentfoot*, 2 one-apartment and 12 two-apartment dwellings; and *Clydesdale Place*, 2 one-apartment and 1 four-apartment dwellings.

Briarfield Cottage, Overtown.—These 2 two-apartment dwellings have each been provided with an inside sink and water supply.

Ardgour, Gowkthrapple.—3 two-apartment, and 1 three-apartment dwellings. Negotiations are proceeding for the provision of water-closet accommodation and the abolition of the existing privy and ashpit.

27-35 Springhill Road, Shotts.—2 one-apartment and 1 two-apartment dwellings without inside sinks, water supply, and water-closet accommodation. A plan showing the owner's proposals was approved of by the Committee, but, as no attempt was thereafter made to commence the work, and communications were ignored, the Statutory Notice was served. A commencement had been made at the close of the year.

Meadowhill Rows, Larkhall.—Referred to on page 372 of last Annual Report. Further Closing Orders were made during the year in respect of the 44 one-apartment and 6 two-apartment dwellings at Nos. 32-39, 40-55, 56-63, 89-100, and 117-128. The tenants are all being offered alternative accommodation in the Committee's Improvement Schemes as houses become available, and the vacated dwellings are being demolished.

Cornsillock Rows, Dalserf.—The depressed state of the coal industry in this locality still delays the provision of inside sinks, water supply, and waterclosets at the 60 two-apartment dwellings referred to on page 372 of last Annual Report.

Ayr Road Rows, Dalserf.—In accordance with the arrangement for the closure of these 40 two-apartment dwellings as they become empty, referred to on page 372 of last Annual Report, a complete row of 24 dwellings was vacated by the end of the year, and the buildings are in course of demolition.

Swinhill Terrace, Dalserf.—Lack of sewerage facilities and the depressed state of the coal industry in the locality still delay the provision of proper sanitary conveniences at these 49 two-apartment, 2 three-apartment, and 1 four-apartment dwellings, referred to on page 372 of last Annual Report.

7-13 *Montgomery Place, Larkhall.*—4 two-apartment dwellings, referred to on page 372 of last Annual Report. When the case called in Court the owner pled not guilty, and an adjournment was made to allow of him introducing an inside sink and water supply to each house. The work was carried out, and at a subsequent diet he was fined £2, with the alternative of ten days' imprisonment.

36-50 *Raploch Street* and 7-9 *Crossgates Street, Larkhall.*—13 one-apartment and 4 two-apartment dwellings without adequate water-closet accommodation, and inside sinks and water supply, referred to on page 373 of last Annual Report. Negotiations for the improvements necessary are still proceeding.

60-70 *Raploch Street, Larkhall.*—6 one-apartment dwellings with inadequate water-closet accommodation, and without inside sinks and water supply, referred to on page 373 of last Annual Report. Owing to the death of the owner, the question of providing the necessary conveniences is meantime in abeyance.

2-12 and 18-20 *High Glengowan, Larkhall*.—3 one-apartment and 5 two-apartment dwellings, referred to on page 373 of last Annual Report. The ownership of this property changed during the year, and the necessary inside sinks and water supply have not yet been introduced.

7 *Miller Street, Larkhall*.—A water-closet has been provided and the existing pail privy abolished at this two-apartment dwelling, referred to on page 374 of last Annual Report.

17 *Hill Street, Larkhall*.—The owner of this two-apartment dwelling has been asked to provide a water-closet and remove the existing pail privy.

57 *John Street, Larkhall*.—A water-closet has been provided at this two-apartment dwelling, and the existing pail privy converted into a toolhouse.

2-10 *North Street, Larkhall*.—Negotiations are proceeding with the owner for the introduction of an inside sink and water supply to each of these 5 two-apartment dwellings.

Hill Terrace, Netherburn.—Two single-storey brick rows, comprising 23 two-apartment dwellings, referred to on page 374 of last Annual Report. The question of providing proper domestic and sanitary conveniences is still in abeyance.

Udston Rows, Hamilton.—Referred to on page 374 of last Annual Report. The position is unchanged.

Eddlewood Rows, Hamilton.—24 one-apartment, 153 two-apartment, 12 three-apartment, and 2 four-apartment dwellings, referred to on page 374 of last Annual Report. The erection of the new water-closets was resumed during the year, but progress was slow, and the owners were asked to expedite matters and have the work completed.

Quarter Village.—Referred to on page 374 of last Annual Report. Lack of sewerage facilities still delays the provision of water-closet accommodation. The demolition of 11 of the one-apartment and 1 two-apartment dwellings at Carscallan Row has been completed.

Chalmers's Property, Glenmavis.—Four new water-closets have been provided at these 3 two-apartment and 1 three-apartment dwellings.

Daisy Bank, Caldercruix.—6 two-apartment dwellings. Proposals for the provision of three new water-closets and dustbin accommodation in lieu of the existing defective privies and ashpit were accepted by the Committee, and the work is proceeding.

Gartgill Square.—Referred to on page 376 of last Annual Report. The provision of proper sanitary conveniences is still under consideration.

Boghall Square, Broomhouse.—Referred to on page 376 of last Annual Report. 6 one-apartment dwellings were demolished by the owners during the year.

112, &c., *Causewayside Street, Tollcross.*—5 one-apartment, 7 two-apartment, 1 three-apartment, and 2 four-apartment dwellings, referred to on page 376 of last Annual Report. The three new water-closets and two inside sinks and water supply accepted by the Committee have been provided. A water-closet has also been introduced to the adjoining licensed premises.

69-73 *Glasgow Road, Barrachnie.*—2 one-apartment and 1 three dwellings referred to on page 376 of last Annual Report. The two new water-closets have now been completed.

18-24 *Church Street, Baillieston.*—This one-storey building with attic flat, comprising 1 one-apartment, 2 two-apartment, 1 three-apartment, and 1 four-apartment dwellings, referred to on page 376 of last Annual Report, is now wholly unoccupied.

Foxley Place, Mount Vernon.—A two-storey tenement, comprising 6 two-apartment and 1 four-apartment dwellings. The owner submitted a plan showing a new bathroom with water-closet for the four-apartment dwelling, and an inside sink and water supply for each of the two-apartment dwellings, together with an additional water-closet there, giving closet accommodation in the proportion of one closet for every two dwellings. The proposals were accepted, and the improvements have been completed.

West Benhar.—8 one-apartment and 147 two-apartment dwellings, referred to on page 377 of last Annual Report. Although all the tenants were offered alternative accommodation in the Committee's Improvement Scheme, 16 dwellings remained in occupation. Application was made to the Sheriff for the closure of the dwellings, and an interlocutor was issued ordaining the owner to close the

houses for human habitation, on or before 28th October, 1928. A notice was sent to each remaining tenant intimating the Sheriff's decision, and pointing out that it was imperative that the houses be vacated by 29th October at the very latest. Only two tenants removed, however, and the Sheriff, on 17th November, 1928, issued a further interlocutor authorising the Local Authority to issue notices to the tenants requiring them to remove within three months from the date of notice, and, failing removal, to arrange for their ejection. The notices to remove were served at the close of the year.

Eastfield Row, Harthill.—There was no change in the circumstances during the year at these 8 two-apartment dwellings, nor at *Peden Place, West Benhar.*—15 two-apartment dwellings, all in an uninhabitable condition, and referred to on page 377 of last Annual Report.

97-115 *Main Street, Harthill.*—9 two-apartment and 1 three-apartment dwellings, referred to on page 379 of last Annual Report. The five new water-closets accepted by the Committee, without prejudice, have now been erected, and the existing privy and ashpit demolished.

158-168 *Main Street, Harthill.*—5 two-apartment dwellings with only one water-closet, referred to on page 379 of last Annual Report. No proposals having been received for increased closet accommodation, the Statutory Notice was served. The owners thereafter submitted a plan showing two additional water-closets. These were accepted by the Committee, without prejudice, and the work has been completed.

Hillhouse Cottage, Hartwoodhill.—A scullery fitted with inside sink, water supply, and water-closet, has been provided at this three-apartment dwelling.

Russell's Land, Cleland.—8 one-apartment, 2 two-apartment, and 2 three-apartment dwellings, referred to on page 378 of last Annual Report. The owner failed to erect the two additional water-closets accepted by the Committee as a temporary provision within the further period of six months allowed him, and the Committee have been advised accordingly. The matter is still under consideration.

29-31 *Omoa Road, Cleland*.—No further progress has been made towards the provision of proper water supply and water-closet accommodation for these 5 one-apartment dwellings, referred to on page 378 of last Annual Report.

Scott's Land, Omoa Road, Cleland.—12 one-apartment and 4 two-apartment dwellings, referred to on page 378 of last Annual Report. A Closing Order was made in respect of the remaining six occupied dwellings, and the property is now wholly unoccupied.

Cityside, Greenhill, Cleland.—5 one-apartment and 2 two-apartment dwellings, referred to on page 378 of last Annual Report. Four dwellings are now closed.

Dalrymple Cottage, Cleland.—A scullery fitted with inside sink, water supply, and water-closet has been erected at this three-apartment dwelling.

Gray Street, Shotts.—11 two-apartment and 3 three-apartment dwellings, referred to on page 379 of last Annual Report. The work of providing an inside sink, water supply, wash-tub, wash-boiler, water-closet, and coal-cellar for each dwelling has been completed.

6-8 *King Street, Shotts*.—The owner of these 2 two-apartment dwellings has provided inside sinks, water supply, and one water-closet.

98-100 *Rosehall Road, Shotts*.—An inside sink, water supply, and water-closet have been provided for each of these 2 two-apartment dwellings.

Seefar Cottages, Salsburgh.—A water-closet has been provided for each of these 3 two-apartment dwellings, and the existing cast-iron sinks in the sculleries replaced by fireclay enamelled sinks.

Main Street, Salsburgh.—The owner of a three-apartment dwelling here is proceeding with the erection of a scullery fitted with an inside sink and water supply, and a bathroom fitted with a water-closet.

9 *Green Street, Stonehouse*.—This two-apartment dwelling, referred to on page 379 of last Annual Report, has now been vacated and closed.

12 *Townhead Street, Stonehouse*.—A water-closet has been provided at this two-apartment dwelling, referred to on page 380 of last Annual Report.

1 *Lockhart Street, Stonehouse*.—2 one-apartment and 1 two-apartment dwellings, referred to on page 380 of last Annual Report. Negotiations for the provision of water-closet accommodation having failed, the Statutory Notice was served. The notice was not complied with, and the Committee authorised legal proceedings, as the result of which two water-closets have now been provided.

28-30 *Union Street, Stonehouse*.—Inside sinks and water supply, and one water-closet, have been provided at these 2 one-apartment dwellings.

32-34 *Union Street, Stonehouse*.—The owner of these 1 one-apartment and 2 two-apartment dwellings was asked to provide water-closet accommodation, but no proposals were forthcoming, and the Statutory Notice was served.

DUPLICATION OF OCCUPANCIES.—During the course of inspections, it has been found that certain property owners have, without apparently executing any structural alterations, contrived to duplicate the number of occupancies at their property. This has been accomplished by letting the kitchen to one family and the room to another, and by means of locking or placing a piece of furniture against the communicating door. As a consequence of this duplicating of dwellings, the common conveniences have now double the number of families using same, and, as what was originally the room is not provided with an inside sink and water supply, the conditions in that apartment are far from satisfactory. Proceedings against owners have been authorised.

WATER SUPPLY, CLOSET ACCOMMODATION, &c.—In connection with the Board's circular requesting information as to the number of closets on the conservancy system converted to the water-carriage system, as well as the number of privies, &c., remaining at the end of the year, also the number of houses without water supply, &c., the following table was prepared. It should, however, be noted that many of the dwellings shown in the table as still having inadequate sanitary conveniences are on the list for closeure under the Committee's Scheme for the Improvement of Insanitary Areas, and will be wiped out in due course.

TABLE SHOWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT, AND THE NUMBER OF COMMON WATER-CLOSETS, DRY CLOSETS, PRIVY-MIDDENS, AND ASPHITS, SERVING 2, 3, 4, AND 5 OR MORE TENANTS, RESPECTIVELY, ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

Locality.	Number of Occupied Houses.	Water-Closets.					Dry Closets.					Privy-middens.					Asphits.					Houses without water and inside sink.	
		2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	Houses without water and inside sink.	
Aitkenhead, &c.,	-	169	9	28	2	1	-	-	-	-	-	12	43	-	-	-	-	-	-	-	-	70	
Baillieston, -	-	1,244	98	54	13	1	-	-	-	1	3	7	10	-	-	-	-	-	-	-	-	126	
Bellshill, &c.,	-	3,728	297	177	120	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119	
Blantyre, -	-	3,297	246	218	200	34	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	102	
Bothwell, -	-	897	68	31	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Busby, -	-	152	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Calderbank, -	-	472	2	1	2	1	-	-	-	15	2	3	36	3	-	-	-	-	-	-	-	1	212
Cambuslang, -	-	5,537	331	481	208	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Carmyle, &c.,	-	973	42	26	22	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	150	
Cleland, &c.,	-	694	38	22	24	5	-	-	-	18	21	11	3	10	6	3	1	45	40	-	-	45	
Dalziel, &c.,	-	328	23	1	-	2	-	-	7	-	-	-	-	-	-	-	-	68	-	-	-	-	
East Kilbride,	-	629	61	34	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gartlea, -	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Glengowan, &c.,	-	443	11	3	-	18	10	22	12	12	2	5	20	-	-	2	1	23	-	-	-	-	
Hamilton Road,	-	104	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Holytown, &c.,	-	2,450	253	75	94	8	-	-	-	-	11	3	6	2	2	1	7	174	-	-	-	-	
Larkhall, -	-	2,787	404	76	66	2	-	-	-	6	4	-	-	4	1	1	1	114	-	-	-	-	
Newarthill, -	-	596	37	8	5	1	1	-	-	20	20	19	14	11	13	16	19	138	-	-	-	-	
Newmains, -	-	915	120	16	4	-	-	-	-	-	-	-	-	-	-	-	-	109	-	-	-	-	
Salsburgh, -	-	188	10	-	-	-	-	-	-	12	42	7	-	16	8	4	-	55	-	-	-	-	
Shotts, &c.,	-	2,086	182	78	26	17	-	-	-	18	94	16	2	10	8	16	2	252	-	-	-	-	
Stonehouse, -	-	826	135	25	6	-	-	-	-	12	-	-	-	-	-	-	-	60	-	-	-	-	
Strathaven, -	-	1,216	100	83	29	1	-	-	-	-	-	-	-	-	-	-	-	85	-	-	-	-	
Uddingston, -	-	1,895	169	64	31	23	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	-	
Waterloo, &c.,	-	776	37	2	4	-	-	-	-	39	21	15	25	13	4	12	33	267	-	-	-	-	
Totals,	-	33,411	2,878	1,470	940	129	11	22	19	156	232	129	129	69	42	55	65	2,254	-	-	-	-	

SEASONAL WORKERS.—Two intimations were received from employers of potato diggers as to the numbers of workers proposed to be employed at Low Mains Farm, East Kilbride and Castlebrocket, Avondale. As, however, written application by the farmer in each case for the approval of the Local Authority with regard to accommodation had not been made timeously, in terms of the Bye-Laws, no workers were allowed to be accommodated at the farms. Other lodging arrangements for the workers were made by the employers, and further action was not found necessary by the Department.

HOUSING (RURAL WORKERS) ACT, 1926.—During the year three applications were made for assistance in aid of the reconstruction and improvement of four dwellings for the accommodation of agricultural workers and other persons whose economic condition is substantially the same as such workers, and a grant was sanctioned by the Committee in each case.

RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACTS, 1920 TO 1925.—The number of applications by tenants for certificates received during the year was 77. In every instance a careful inspection of the premises was made, and a report submitted for the consideration of the Committee. The certificates granted by the Committee numbered 82, including 18 applications continued from the preceding year; 9 were refused; and the remaining four applications were being dealt with at the close of the year.

In some cases it was found that the applications were not well-founded and were made with a view to drawing the attention of the Department to the supposed need for the applicant being allocated a new house at a reduced rental in one of the Local Authority's Improvement Schemes.

Intimation was sent to the owner of each dwelling giving details of the defects found, and in many instances repairs were immediately carried out.

The following table shows the number of certificates granted since the commencement of the Act, and the cases in which repairs were executed:—

Parish.			Number of Certificates Granted.	Houses in which Repairs have been Executed.	Number still being dealt with.
Avondale,	...	...	12	12	—
East Kilbride,	...	...	8	8	—
Glasford,	...	...	4	4	—
Stonehouse,	...	...	16	16	—
Blantyre,	...	...	231	215	16
Bothwell,	...	...	409	354	55
Cambuslang,	...	...	166	149	17
Cambusnethan,	...	...	46	44	2
Dalserf,	...	...	287	279	8
Dalziel,	...	...	1	1	—
Hamilton,	...	...	39	34	5
New Monkland,	...	...	69	62	7
Old Monkland,	...	...	549	516	33
Shotts,	...	...	304	276	28
Total,			2,141	1,970	171

Applications by Landlords.—Six applications were received from owners of houses, in respect of which certificates had previously been granted to the tenants, requesting reports of the Local Authority to the effect that the houses were now in a reasonable state of repair. The Committee granted a certificate only in one case and refused five.

Ruinous Buildings.

The following ruinous or dangerous buildings were dealt with during the period under review, in terms of Section 191 of the Burgh Police (Scotland) Act, 1892, as applied to the County by Section 10 (2) of the Local Government (Scotland) Act, 1908 :—

Shotts.—An occupied dwelling at 124 Benhar Road, Shotts, was reported as being in a dangerous condition, the roof having become detached from the gable wall, and leaving a 6-inch cavity throughout the entire width of the building. A notice was served on the owner, who immediately had the matter put right.

Bellshill.—The chimney-head of an old property at 118 Main Street, Bellshill, which had been closed, was found to be in a dangerous state, the stonework being loose and worn. The chimney-head was demolished after a notice had been served on the owner.

A two-storey wooden building at Crossgates, Bellshill, was complained of as being ruinous and dangerous to passengers, and, after service of a notice, the owner had the roof removed.

Bothwell.—At Agra Bank, Bothwell, a portion of the north gable was reported as being in a dangerous state, and, after service of a notice on each of the joint-owners, the necessary repair work was performed.

Blantyre.—Two old one-storey buildings at Douglas Street, High Blantyre, comprising a disused byre, wash-house, &c., were found in a dangerous condition. A notice was served on the owner, and, after some delay, the buildings were razed to the ground.

The gable of a disused byre adjoining 113 Broompark Road, Blantyre, was found to be off the plumb and in a dangerous condition, and, after service of a notice, the owner had the dangerous portion of the wall taken down.

Larkhall.—Complaint was made that the vacant buildings at 10-11 and 78-79 Meadowhill, Larkhall, were dangerous to passengers, and the buildings were demolished after a notice had been served on the owner.

Drainage.

There are now 26 Special Drainage Districts in the Middle Ward Area, a new district to include the village of Overtown having been formed on 24th February. The boundaries of the following Special Drainage Districts were extended, viz.:—Aitkenhead and Tannochside; Baillieston; Bellshill and Mossend; Bothwell; Cambuslang; Carnbroe; Chapelhall; East Kilbride; Larkhall; Mount Vernon; Salsburgh; Shotts and Dykehead; Stonehouse; and Strathaven, on 24th February; and Newmains, on 29th June.

New Sewers.—The following information was supplied by the District Engineer as to sewers constructed during the year, viz.:—

Special Drainage Districts.—

	Lineal Yards.		
	9"	12"	18"
Sewer through Hallside Village and in Steelworks Road,	396	646	136
Sewer for Masonic Temple, Shotts,	54	—	—
Totals,	450	646	136

The number of connections made to sewers during the year was 71.

Housing.—

				Lineal Yards.		
				9"	12"	15"
Ballgreen, Strathaven,	...	...		97	—	—
Fallside, Uddingston,	...	...		822	—	197
Muiredge, Uddingston,	...	...		178	—	—
Overton Road, Cambuslang,	..	....		32	—	—
Crosshill, Baillieston,	...	...		194	—	—
Station Road, Carmyle,	...	...		416	332	—
Glenboig,	...	...	...	93	—	—
Totals,	...	...		1,832	332	197

A complete installation of Sewage Purification Works, consisting of sewage tank and one percolating filter with rotary distributor, has been constructed to deal with the sewage from Glenmavis Housing Site.

Auchentibber.—A requisition by not fewer than ten parish electors—there were actually 71 signatures of ratepayers resident in Auchentibber—was received, calling upon the District Committee “to create a suitable area of the district into a special drainage area.” A report by the District Engineer was submitted to the Committee, who, after consideration, decided that, having regard to the comparatively small number of houses and the absence of industry at the place, there was no justification for an expensive drainage scheme being provided for the village. Moreover, a Closing Order under the Housing Act in respect of 28 dwellings had been made and the tenants were to be removed to Improvement Scheme houses in another part of the district. A further report showing a modified scheme of drainage was afterwards considered by the Committee, who resolved to adhere to their former decision that a Special Drainage District for Auchentibber be not formed.

Ashgillhead.—A complaint was received from the owner of Torland, Dalserf, complaining of the foul condition of the Stewart Gill Burn, which flows past the end of his house. The burn receives in addition to effluent from the Committee’s Housing Scheme, the sewage from Ashgillhead Village, which is discharged in a crude condition into the burn some distance above the point where the effluent from the sewage tank is discharged. Ashgillhead is one of the areas which

was dealt with under the District Committee's proposed schemes for the provision of sewerage and sewage purification works for areas outwith Special Drainage Districts, referred to on page 386 of last Annual Report, but, in view of the economic conditions prevailing in the area it was deemed inexpedient to proceed meantime with a scheme for Ashgillhead. Arrangements were made by the Department to have the bed of the burn cleaned out, and the conditions complained of were abated.

Foul Ditches.—As referred to on page 387 of last Annual Report, a number of ditches throughout the district into which sewage is discharged was cleaned out during the year at the expense of the Local Authority, with satisfactory results.

Water Supply.

The water supply from the various reservoirs belonging to the Middle Ward District Committee was more than sufficient to meet all demands. Complaints were received as to local deficiencies, but these were mostly found to be due to deficient service pipes, and on being brought to the notice of the respective owners were remedied in every instance.

The following is a note, prepared by the Water Engineer, showing the extensions of water pipes carried out during the year :—

				Lineal Yards.			
				2"	3"	4"	6"
Kingshill Housing,	-	-	-	—	60	—	—
Ballgreen Housing,	-	-	-	—	100	—	—
Auchenraith Housing,	-	-	-	—	90	—	260
East Kilbride Housing,	-	-	-	—	180	—	—
Peveril Avenue, Burnside,	-	-	-	—	100	—	—
Fishescoats Housing,	-	-	-	—	250	—	—
New School, Caldercruix,	-	-	-	—	60	—	—
Overton Road Housing,	-	-	-	—	100	30	—
Victoria Auxiliary Hospital, Phillipshill,	—	—	—	—	—	230	—
Waterloo Housing,	-	-	-	—	120	—	—
M'Donald, Burnside,	-	-	-	—	—	—	1,000
Highlees Farm, Larkhall,	-	-	-	700	—	—	—
Muiredge Housing,	-	-	-	—	120	—	—
Craig Farm, Sandford,	-	-	-	280	—	—	—
Cleland Housing,	-	-	-	—	280	—	—
Wemysshill Housing,	-	-	-	—	200	—	—
West Quarter House,	-	-	-	600	—	—	—
Little Shaws,	-	-	-	260	—	—	—
Thomson, Garrison,	-	-	-	—	45	—	—
Totals,	-	-	-	1,840	1,705	260	1,260

Water Samples.—Owing to complaints made regarding the quality of water supplies from private sources, samples were obtained from the following places and submitted for chemical analysis:—Goslington Farm, Stonehouse; Parkhead Farm, East Kilbride; Lonsdale Poultry Farm, East Kilbride; West Nerston Cottage, East Kilbride; Mains Shaw Cottage, Uddingston; Bardykes Colliery, Hallside (2); Gilbertfield Farm, Cambuslang (2); Highlees Farm, Larkhall (3); Bogside Farm, Stonehouse (2); Udstonhead Farm, Avondale (2); Southfield Colliery, Shotts (2); Waterhead Farm, Strathaven; East Drumloch Farm, Chapelton; and Thornwood House, Uddingston.

Goslington Farm, Stonehouse.—A sample of water, said to be from a spring and collected in a 24-inch diameter pipe in the drying-green, was taken from the pump in the boiler-house at this farm. The water was liable to pollution by surface water, and the analysis showed that it was of doubtful purity.

Bogside Farm, Stonehouse.—A sample of water from this farm was found to be satisfactory. The well was cleaned out and a further sample taken, but the results of analysis indicated an excessive amount of iron in solution and suspension and the water was considered unsuitable for domestic use. The matter was still in hand at the close of the year.

Udstonhead Farm, Avondale.—Owing to excessive bacteria count in the milk supply of this farm and the difficulty in locating the cause, three samples of water were taken from different sources. The analysis of two samples proved the water to be good, but in the third instance the water was found to be polluted and unfit for domestic or dairy purposes. The latter water had been used for rinsing milk cans, &c., and this supply has been stopped, the pump being now dismantled.

Waterhead Farm, Strathaven.—A sample of water taken from a proposed new water supply at this farm was found on analysis to be satisfactory.

East Drumloch Farm, Chapelton.—A sample of water taken from a well at this farm was found to be polluted and quite unfit for domestic or dairy purposes. A further sample was taken from a supply which comes from a quarry in the vicinity, and the results of analysis showed that the water, with adequate filtration, would be satisfactory.

Parkhead Farm, East Kilbride.—Owing to the unsatisfactory nature of the water supply to this farm, complaint was made to the owner, with the result that a gravitation supply from the Middle Ward water main has been laid in to the farm.

Lonsdale Poultry Farm, East Kilbride.—Before proceeding with the erection of a dwelling at this farm, the owner requested that a sample of the proposed water supply from a ditch be taken for analysis. This was done, and the water was found to be satisfactory.

West Nerston Cottage, East Kilbride.—Complaint was made as to the foul odour from the water supply at this dwelling, and a sample taken from the well was found to be unsatisfactory. The well has since been cleaned out, and a further sample showed that the water is now satisfactory.

Mains Shaw Cottage, Uddingston.—A sample of water taken from the pump at this dwelling was found to be polluted, and a gravitation supply has since been introduced.

Thornwood House, Uddingston.—As a result of illness among the inmates of this mansion house, which is provided with gravitation and a well-water supplies, the tenant requested that investigation be made. Careful enquiries were made and samples of the well-water taken for chemical and bacteriological analyses. The result of the chemical analysis showed that the water was of doubtful purity, and the use of water from the well was discontinued.

Bardykes Colliery, Hallside.—Complaint was made that the water available for miners at this colliery was unfit for drinking purposes. Samples were procured for analyses, but the water, which is pumped from the first level of the pit, showed no evidence of pollution, although there is a considerable amount of saline matter present.

Gilbertfield Farm, Cambuslang.—Two samples of water were taken, one from an underground tank and the other from a tap in the scullery at this farm. Both samples showed no evidence of organic pollution.

Highlees Farm, Larkhall.—A sample of private gravitation water from this farm was found on analysis to be polluted, and entirely unfit for domestic purposes. A gravitation supply has now been introduced.

Southfield Colliery, Shotts.—Two samples of water, one from No. 1 pit shaft and the other from the surface, were analysed and found to be objectionable for domestic purposes on the ground of hardness and mineral salts.

Scavenging.

There are still 25 Special Scavenging Districts within the Middle Ward Area, no new districts being formed during the year. The boundaries of the following Special Scavenging Districts were extended, viz. :—Baillieston; Busby; Cambuslang; and Glengowan and Caldercruix, on 21st December, 1927; Waterloo and Overton, on 27th April, 1928; and Newmains, on 29th June, 1928.

The following is a summary of the work of scavenging carried out in each Special District :—

AITKENHEAD, TANNOCHSIDE, AND BOTHWELLPARK.—The work of collection and disposal of the refuse within this Special District was carried out by a contractor twice weekly in a satisfactory manner, the refuse being deposited in Fallside Coup.

BAILLIESTON.—The daily collection and removal of refuse within this Special District continues to be executed by the staff employed by the Local Authority in a satisfactory manner. During the summer months the refuse is deposited in Braehead Quarry and in winter it is tipped in an old sand pit at Rhinsdale. The work of removing the contents of the ashpits at West Marystone during winter months was satisfactorily carried out by a local contractor.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site at Crosshill.

Common Stairs, &c.—Two notices in terms of Section 117 of the Burgh Police Act, 1892, were served on property owners requiring them to whitewash, or, at their option, to paint, the walls and roofs of common passages at their respective properties, and in each case the necessary work was carried out.

BELLSHILL AND MOSSEND.—The refuse within this Special District is collected daily by the staff under the direct control of a local Sub-Committee of Management, who also employ a superintendent to direct the work. The refuse is deposited in a coup.

Common Stairs, &c.—Notices were served on three owners of property requiring the whitewashing or painting of common passages and staircases, and in each case the work was executed.

BLANTYRE.—The work of scavenging in this Special District continues to be carried out satisfactorily by a contractor, under the direct control of a local Sub-Committee of Management and supervised by their superintendent. The refuse is collected and removed daily to the public park, where it is used for levelling purposes.

Common Stairs, &c.—Sixteen notices were served on property owners requiring the whitewashing of common passages and staircases, and in every instance the work was duly executed.

BOTHWELL.—The daily collection and removal of refuse within this Special District continues to be carried out in a satisfactory manner by a staff in the direct employment of the Sub-Committee of Management. The contractor engaged during the winter months to collect and remove the contents of the ashbins three times weekly from the Housing Schemes also gave every satisfaction. All refuse matter is deposited in Fallside Coup.

Common Stairs, &c.—Six notices to whitewash or paint common passages and staircases were served on owners, and the necessary work was done in every case.

BUSBY.—The refuse within this Special District was collected and removed to Busby Glen coup twice weekly by a contractor. Numerous complaints were received regarding the dilatory manner in which the contractor was carrying out the service and he was repeatedly warned, but it was only after holding up a monthly payment that conditions improved.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site so far as situated outwith the existing scavenging district.

CALDERBANK.—The twice-weekly collection and removal of refuse within this Special District was carried out by a contractor in a satisfactory manner, the refuse being used on farm lands. As stated in former Annual Reports, the lack of drainage facilities still hinders the provision of water-closet accommodation and the abolishing of the existing privy-middens.

CAMBUSLANG.—The daily collection and removal of refuse within this Special District was carried out satisfactorily by a contractor, all refuse being disposed of at Cambuslang Destructor.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site at Overton Road, and the houses at Westburn belonging to the Second Scottish National Housing Company.

Common Stairs, &c.—Thirty notices to whitewash or paint common passages and staircases were served on owners of property, and in every instance the work was duly carried out. Eight notices in terms of Section 115 of the Burgh Police Act, 1892, were served on occupiers who had failed to sweep and wash regularly the common passage and stairs giving access to their premises, determining the rotation to be observed by them in future in such sweeping and washing, and intimating that, in the event of their failure to comply with the requirements thereof, proceedings would be taken against them. Sweeping and washing have since been regularly carried out.

CARMYLE AND MOUNT VERNON.—The daily collection and removal of refuse in this Special District continues to be done satisfactorily by the staff employed by the Local Authority. The bulk of the refuse is deposited in the disused portion of a local sand-pit, and the remainder used on farm lands.

Common Stairs, &c.—In nine instances notices were served on owners of property requiring them to whitewash the walls and roofs of common passages and staircases, and in every case the work was duly carried out.

CLELAND AND OMOA.—The refuse in this Special District was collected and removed three times weekly to farm lands by a contractor. Twelve privy-middens were abolished during the year.

DALZELL AND NETHERTON.—The scavenging in this Special District continues to be done satisfactorily by the staff in the direct employment of the Local Authority, the refuse being collected daily and deposited in coups. Part of the time of the staff is devoted to the Hamilton Road Special Scavenging District.

EAST KILBRIDE.—The collection and removal of refuse three times weekly in this Special District was undertaken satisfactorily by a local contractor, all refuse being deposited in a coup.

Commons Stairs, &c.—A notice was served on an owner of property requiring the whitewashing of the walls and roof of a common passage, and the work was duly carried out.

GARTLEA.—The weekly collection of refuse in this Special District continues to be done in a satisfactory manner by a contractor, all refuse matter being deposited in a coup.

GLENGOWAN AND CALDERCRUIX.—The scavenging of this Special District was undertaken twice weekly by a farmer contractor, who deposited the refuse on his own lands. The collection is chiefly from privy-middens, and the work was done in a satisfactory manner.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site at Caldercruix Station, and other subjects in the vicinity.

HAMILTON ROAD.—The daily refuse collection was undertaken by the staff employed in the Dalzell and Netherton Scavenging District, and executed in an efficient manner.

HOLYTOWN, NEW STEVENSTON, AND CARFIN.—The daily collection and removal of refuse in this Special District continues to be carried out by a staff in the direct employment of the Local Authority in a satisfactory manner, the refuse being disposed of at New Stevenston Destructor. The ashpits at Legbrannock are emptied weekly and the refuse deposited on farm lands by a contractor.

LARKHALL.—The daily collection and removal of refuse within this Special District was carried out by a staff in the direct employment of the Local Authority, the refuse being disposed of at Larkhall Destructor and in coups.

Common Stairs, &c.—Two notices were served on owners of property requiring the whitewashing of the walls and roofs of common passages and stairs, and in each case the work was duly carried out.

NEWARTHILL.—The collection and removal of refuse to farm lands was carried out satisfactorily by a contractor, the contents of ashbins being removed twice weekly, and the ashpits emptied at least once a month.

NEWMAINS.—The daily collection and removal of refuse in this Special District was carried out in an efficient manner by a contractor, the material being deposited in coups.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site at Bonkle so far as situated out-with the existing Special Scavenging District, and a property at Westwood Road.

SALSBURGH.—The refuse within this Special District was collected twice weekly and removed to farm lands by a contractor, who carried out the work satisfactorily.

SHOTTS AND DYKEHEAD.—The daily work of scavenging in this Special District continues to be done in an efficient manner by a staff in the direct employment of the Local Authority, most of the refuse being deposited in coups, and the remainder used on farm lands. During the year 64 privy-middens were abolished.

STONEHOUSE.—The collection and removal of refuse twice weekly in this Special District was carried out satisfactorily by a local contractor, all material being deposited in a coup.

STRATHAVEN.—The daily collection and removal of refuse within this Special District was undertaken by a contractor, all refuse matter being deposited in a coup.

UDDINGSTON.—The refuse within this Special District was collected daily and deposited in Fallside Coup by a contractor, the work being carried out with satisfaction.

Common Stairs, &c.—Four notices were served on owners of property requiring the whitewashing or painting of common passages and stairs, and in each case the requirements of the notice were observed.

WATERLOO AND OVERTOWN.—The scavenging of this Special District was undertaken by a contractor, the refuse from ashbins and earth-closets being collected twice weekly, and the contents of ash-pits removed at least once a month, all material being disposed of on farm lands and in coups.

Extension of Boundaries.—The boundaries of the Special Scavenging District were enlarged during the year to include the District Committee's Housing Site at Thornhill so far as situated outwith the existing Special Scavenging District.

HOUSING SCHEMES.—The collection and removal of refuse twice weekly from the dwellings at the following Housing Schemes still outwith Special Scavenging Districts was carried out by contractors under the supervision of the local Sanitary Inspectors, viz.:—Ashgillhead, Broomhouse, Carnbroe, Chapelhall, Drumpark, Eastfield, Ferniegair, Glenmavis, Greengairs, Kingshill, Meikle Earnock, and Westcraigs.

PROVISION OF DUSTBINS.—During the year notices in terms of Section 23 of the Burgh Police Act, 1903, were served on numerous owners of property within the Special Scavenging Districts requiring them to provide proper covered receptacles for refuse. In most cases suitable ashbins were provided after service of the notice, and the remainder were reported to the Committee with a view to proceedings in terms of Section 24 of the Act being instituted. Legal proceedings were found necessary in one instance, when the respondent was fined 20s., viz.:—39-47 Carfin Street, New Stevenston.

WATER-CLOSETS.—The following statement shows the number of privies which existed in Special Scavenging Districts prior to the formation of same, also the number since abolished, and water-closet accommodation provided in lieu, viz.:—

District.	Privies.	Abolished.	District.	Privies.	Abolished.
Aitkenhead, &c.,	87	21	Hamilton Road,	—	—
Baillieston, -	145	106	Holytown, &c., -	185	157
Bellshill, &c., -	382	380	Larkhall, -	868	856
Blantyre, -	251	251	Newarthill, -	112	35
Bothwell, -	100	99	Newmains, -	246	246
Busby, -	—	—	Salsburgh, -	56	24
Calderbank, -	75	1	Shotts, &c., -	717	643
Cambuslang, -	212	212	Stonehouse, -	180	165
Carmyle, &c., -	50	36	Strathaven, -	460	460
Cleland, &c., -	260	126	Uddingston, -	102	102
Dalzell, &c., -	30	22	Waterloo, &c., -	169	30
East Kilbride, -	34	34			
Gartlea, -	4	3	Total, -	4,817	4,011
Glengowan, &c.,	92	2			

Private Streets.

LARKHALL.—In connection with the unsatisfactory state of *Academy and Victoria Streets, Larkhall*, referred to on page 395 of last Annual Report, notices were served on the feuars ordering them to carry out the repairs necessary on the streets, in order to conform to the provisions of Section 39 of the Public Health (Scotland) Act, 1897, the time allowed for the execution of the repairs being due to expire on 10th February, 1929.

Claude Street.—As referred to on page 396 of last Annual Report, operations on this street have been delayed until the erection of the new school building at Larkhall Academy, which is now nearing completion.

Avon Street.—This street was found to be in an unsatisfactory condition and the matter was taken up with the various feuars. A meeting of parties interested was held on the ground, when it was arranged that certain repairs would be executed, and, at the close of the year the work was almost completed.

BAILLIESTON.—In connection with the unsatisfactory condition of *Maxwell Street, Baillieston*, reported on page 396 of last Annual Report, a note was sent to each of the feuars showing the estimated cost of (a) repairing the street under the Public Health Act, and (b) making up the street to the highway standard, and showing the amount payable by each owner. Three owners were agreeable to the proposal for the making up of the street, two were not agreeable, and the remaining owner has not yet indicated his decision in the matter. A further effort is being made to obtain the assent of all the feuars to the proposal for the making up of the street.

Muirside Road.—The unsatisfactory condition of this roadway was brought to the notice of the various feuars. At a meeting held on the ground a proposal to repair the road was submitted, and the matter is still under negotiation.

CAMBUSLANG.—An inspection of the private roadway leading from *Lightburn Road to Castle Chimmings Avenue, Cambuslang*, disclosed the whole surface to be in a soft and miry condition, and the question of the making up of the road was taken up with the various owners, two of whom would not agree to pay a share of the cost. Negotiations are still proceeding.

Nuisances.

During the year 82,630 inspections were made for the detection of nuisances, and the number of nuisances recorded was 1882, the chief being choked drains, sinks, and water-closets. A considerable number of such chokages are caused by carelessness on the part of tenants, and both verbal and written cautions have been administered to many offenders.

Intimations were issued to authors of nuisances in 1,344 cases, and in many instances the cause of complaint was immediately removed. Where the intimations had no attention Statutory Notices were served, and these numbered 211.

Prosecutions.—Legal proceedings were taken in thirteen instances, and the following is a brief note on each case, viz. :—

1 *Springhead Road, Allanton, Shotts.*—Filthy house and bedding. The respondent pled guilty, and was admonished.

Hamilton Street, and Southfield Avenue, Torbothie, Shotts.—Seven cases of overcrowding. Three were fined 10s., and the other four 15s. each.

Hugomont Place, Waterloo.—Overcrowding. This case has been continued *sine die*.

10 *Church Street, Newarthill.*—Overcrowding. A continuation *sine die* was also granted in this case.

73 *Jerviston Street, New Stevenston.*—Defective sink and drain. The respondent removed the nuisance and was found liable in 42s. expenses.

1-12 *Home Farm Rows, Hamilton.*—Two dilapidated and foul ashpits. After the nuisances were removed the owners were found liable in 42s. 6d. expenses.

22 *Omoa Road, Cleland.*—Choked sink and broken rhones. This case was dropped after removal of the nuisances and the payment by the owners of expenses.

Unfenced Mine Shafts.—Twenty discontinued or abandoned mine shafts were found to be in a dangerous condition, and dealt with by the Department. These were situated as follows:—Lauchope No. 2,

Holytown; Allanton, Hamilton; Castlerigg Nos. 1 and 2, Whiterigg; Craighill, Chapelhall; Burnhill No. 6, Newarthill; Lochburn, Ballochney; Woodside, Newarthill; Fairybank No. 3, Newhouse; Gartness, Airdrie; Cullochrigg, Riggend; Avonside No. 1, Longrigg-end; Lauchope, Holytown; Lodgehill, East Kilbride; Greenside No. 3, Newhouse; Meadowfield, Greengairs; South Langridge, Newhouse; Whiterigg No. 5, Whiterigg; and Braidenhill Nos. 2 and 3, Airdrie.

Corporation Coups.—The nuisance conditions arising from the refuse coups belonging to Glasgow Corporation in the vicinity of Glenmavis, referred to on page 398 of last Annual Report, were the subject of further complaints during the year, and the whole matter was again raised with the Corporation Cleansing Department. A meeting was held on the ground with the officials concerned and remedial measures were discussed, with the result that the nuisance conditions have now been abated. The Corporation officials are still being pressed for continued efforts to prevent a recurrence of the nuisance conditions hitherto obtaining.

Burning Bing, Clapperhowe.—As a result of the energetic action and precautions taken in dealing with the burning bing at Clapperhowe, Motherwell, referred to on page 399 of last Annual Report, the nuisance conditions have now abated, and the bing is to all appearance burned out.

Burning Bings, North Road, Bellshill.—The use of the coup by the L. and N.-E. Railway Company at North Road, Bellshill, referred to on page 399 of last Annual Report, has been discontinued. Regular observations were made of the burning bing at No. 13 Rosehall Colliery, also referred to in last Annual Report, and the nuisance is now abated.

Bellshill Laundry.—As referred to on page 399 of last Annual Report, the nuisance caused by the emission of black smoke from a chimney at this laundry was the subject of negotiations with the proprietor, who asked for time to experiment with new fuel. The experiment, however, not proving a success, a new steel chimney was eventually obtained and the offending furnace connected to an existing stalk some 60 feet in height. No further complaints have since been received.

Brick-crushing Machine, Station Road, Blantyre.—A complaint was received with regard to noise and dust from a brick-crushing machine situated within a builder's yard near Knightswood Terrace, Station Road, Blantyre. The machine, which is petrol-driven, was placed only some six feet from the boundary fence of the drying green of the property adjoining, and, when in operation, the machine caused serious nuisance conditions through dust and fumes entering the dwellings, the nearest house being only about twelve yards away. After negotiations, the owner commenced the erection of a brick building to screen the plant, and when completed this will entirely enclose the machine. A further inspection will be made when the work is completed.

East Kilbride Creamery.—Complaints were made regarding the emission of black smoke from the chimney at this creamery. The matter was taken up with the owners, who made alterations to the furnaces and made the chimney stack higher. No further complaints have since been received.

Viewpark Colliery, Uddingston.—A refuse bin at this colliery was found to be creating nuisance conditions through smoke and fumes, and after service of an intimation on the owners, the nuisance was abated.

Smithy Burn, Tollcross.—In connection with a complaint of rat infestation at premises at 143-147 Causewayside Street, Tollcross, it was represented that it was useless for the owner to take steps to destroy rats, as the premises were immediately re-infested from the Smithy Burn, which passes near the property, and it was also stated that this burn was a nuisance in dry, warm weather, and ought to be piped or covered in. An inspection of the *locus* was made and it was found that, although the burn was at what might be called summer flow, no nuisance conditions were observed, nor any evidence of rats, consequently there was nothing which would justify the expense of covering in the burn.

Cinemas.

All the cinemas within the District were regularly inspected during the year and, with a few exceptions, the standard of cleanliness was found to be good.

Public Conveyances.

During the year 2,220 inspections of public conveyances were made, and several structural defects on motor buses plying for public hire were reported to the licensing authority. The small bus owner is gradually being eliminated and the large companies are alive to the need for clean modern vehicles being put on the road. As a consequence, the general cleanliness of all public conveyances is now very good.

Pithead Baths.

A new system of pithead baths, the first of its kind in Scotland, was inaugurated towards the close of the year at Dalzell and Broomside Colliery, Motherwell, under the direction of the Miners' Welfare Committee.

The premises accommodate 616 miners, and the locker-rooms are designed to accommodate 1,232 single-tier lockers, each miner being allocated a locker in the clean-clothes locker-room, and a locker in the pit-clothes locker-room.

In the bath-section, 54 half-screened cubicles are provided, and access to these is obtained by four entrances.

A rest-room, first-aid room, lavatory accommodation, facilities for the cleansing and greasing of pit boots, drinking fountains, and filling points for water-bottles, are provided adjacent to the pit entrance, and accessible from the pit locker-room is the attendant's room, with soap and towel stores.

Besides bathing accommodation for males, the female workers are also provided for in the form of baths in a completely separate annexe at one end of the building. The annexe contains twenty-six pairs of lockers and four fully-screened cubicles.

The following short description by the Miners' Welfare Committee may be of some interest:—

“The miner arriving from his home at the baths enters the building by the entrance porch on the north side and passing down the central lobby dividing the clean-clothes locker-room, turns right or left according to whether his clean locker is situated in the right-hand or left-hand section, each locker being numbered, and the numbering being so distributed as to split the largest shift between

“ the right-hand and left-hand sections. After hanging his home clothes in his clean locker, the miner, taking his soap and towel from the locker, passes through the one-way doors to the corridor leading to the pit-clothes locker-room, and proceeds to his pit-locker (corresponding to his clean locker in number and in reversed relative position in the room) where he stows away his soap and towel, and puts on his pit clothes. After filling his water-bottle on the south side of the building, the miner leaves by the pit entrance, and proceeds to the shafthead.

“ At the conclusion of his day's work, and on arrival at the shaft-head, the miner enters the building by the pit entrance on the south side, where he finds the boot-cleaning machine at his left hand. After brushing his boots, he enters the pit-clothes locker-room, proceeds to his pit locker, stows away his working clothes, takes up his soap and towel, and enters the adjacent bath section through the nearest entrance; he then bathes in the first available cubicle, and, when ready, enters the clean-clothes locker-room by the bath exit, situated on the north side and nearest to his clean locker. At his clean locker, the miner puts on his home clothes, stows away his soap and towel, and leaves the building by the north entrance porch. Refreshment will be available for him at the canteen, before starting on his journey home, if he desires.”

Workshops.

The number of workshops on the register at the beginning of the year was 314. Since then 10 have been added thereto and 21 removed therefrom, leaving 303 at the close of the year.

During the year two notices were received from H.M. Inspector of Factories of persons beginning to occupy workshops. The premises were duly inspected, measured, and the occupiers supplied with cards showing the capacity of each room and the number of employees permissible.

The inspections made numbered 566, and five notices were received from the Inspector of Factories regarding insanitary conditions in workshops. The matters complained of—four dirty bakehouses and a water-closet in direct communication with a bakehouse—were taken up and dealt with by the Sanitary Staff. The Department also dealt with other nine dirty bakehouses, three dirty

water-closets, two defective chimneys, a leaky roof, and broken plasterwork, found in the course of our routine inspections.

Two lists, containing three outworkers, under Section 107 of the Factory and Workshop Act, were received from the City of Glasgow Authority. Inspections were made of all the premises, and these were found in a satisfactory condition.

The following table gives the handicrafts carried on in the various workshops :—

HANDICRAFTS.					
Dressmaker,	-	-	16	Plumber, - - -	9
Tailor, - - -	-	-	53	Cartwright, -	1
Milliner, - - -	-	-	11	Photographer, -	1
Baker, - - -	-	-	102	Motor Repairer, -	4
Shoemaker, - - -	-	-	42	Hosier, - - -	3
Saddler, - - -	-	-	5	Coachbuilder, - -	4
Blacksmith, - -	-	-	19	Coachpainter, - -	1
Joiner, - - -	-	-	14	French Polisher, -	1
Cabinetmaker, -	-	-	3	Confectioner, - -	2
Silk Weaver, - -	-	-	1	Underclothing, - -	1
Moss Litter Work,	-	-	1		
Watchmaker, - -	-	-	9	Total,	<u>303</u>

Prosecution.—During the year a contravention was reported of Section 97 (a) of the Factory and Workshops Act, 1901, in respect of a bakehouse at Albert Bakery, Victoria Street, Larkhall, being in direct communication with a water-closet. The occupier was asked to provide an intervening ventilated space, but this he persistently refused to do, and Court proceedings had to be resorted to. After service of the summons, the defender caused certain alterations on the premises to be made, which satisfied the requirements of the Act. The defender pled guilty to the contravention, and was admonished by the Sheriff and found liable in £1 ls. costs.

Bakehouses Welfare Order, 1927.—One bakehouse was found to have no washing facilities, and no cloakroom and drying facilities, and, on the matter being brought to the notice of the occupier, the necessary conveniences were provided.

Fire Escapes.—Two applications were received requesting a certificate of the Local Authority in terms of Section 14 (1) of the Factory and Workshops Act, 1901, as to provision of means of escape in case of fire, and in both cases the necessary certificates were granted after certain work had been carried out. The premises concerned were Frew's Hosiery Factory, Strathaven, and Rhinsdale Preserve Works, Baillieston.

Public Schools.

The various public schools were inspected throughout the year, and several matters requiring attention were brought to the notice of the Education Authority.

Strathaven.—With regard to the insanitary condition of the lavatories at Crosshill School, Strathaven, reported on page 402 of last Annual Report, the new extension to Strathaven Academy is now in progress, and when available for use, Crosshill School will cease to be used as a school.

Auldhouse.—A new system of drains with septic tank have been laid at Auldhouse School with a view to the introduction, at some future date of water closets. This work has been carried out now so as to avoid lifting the surface of the playground which is being asphalted.

Tents and Vans.

In the course of the year 348 inspections of tents and vans were made throughout the District, and all the premises were found in a satisfactory condition.

Cambuslang.—Inspections were made during the annual visit of shows, &c., which are accommodated on vacant ground adjacent to the Car Terminus, Cambuslang. From a sanitary point of view this ground is unsuitable for such purposes in respect that there is no drainage or water supply convenient for the occupiers. However, no nuisance conditions were created, and scavenging was carried out daily.

Summer Camps.—The summer camp at Lickprivick Farm, East Kilbride, was again occupied this year. Thirty families were in residence, and the satisfactory conditions previously reported were again found to exist. It was observed that several of the families had ceased to occupy tents and were living in old railway coaches, the central compartments of which had been converted into a living-room and the compartments at each end were made into bedrooms. The coaches proved ideal for the purpose of camping this year, owing to the very wet conditions prevailing during the summer months.

Interments.

The bodies interred at the expense of the Local Authority during the year numbered 20, the deaths being due to various causes. Eighteen of the bodies were claimed and two unclaimed, but no "sufficient person" undertook the burial. The total cost to the Local Authority amounted to £37 5s 6d., and in five instances sums were afterwards recovered from relatives and others amounting in the aggregate to £5 10s. 7d.

Common Lodging-houses.

There were three common lodging-houses on the register at the beginning of the year, and two of the keepers applied for and were granted renewal of registration. No application was made in respect of Auchinlea Lodging-house, Cleland, as, owing to bad trade in the district, the premises have been closed.

Dairies, Cowsheds, and Milkshops.

1422 visits of inspection were made by the Sanitary Staff to dairy premises, and in several instances structural defects were reported and dealt with under the Local Authority's Bye-Laws.

As a result of complaints regarding dirty milk supplies, a number of special visits were made at milking time to certain dairy farms, and, where methods of milking were found to be unsatisfactory, instructions were given to those concerned.

Several cowkeepers were dealt with for failing to keep their dairy animals properly cleaned and groomed, and in some instances cowkeepers were warned as to the dirty condition of byres, &c. In all these cases no further action was found to be necessary.

New Byres, &c.—The following plans were submitted and approved of during the year for improvements and alterations at dairy premises:—

Burnfoot, Airdrie, ...	...	...	New Byre.
Westerton, Strathaven, ...	...	...	Do.
Millhouse, East Kilbride, ...	...	...	Do.
Burnhouse, East Kilbride, ...	...	...	Do.
Bogside, Greengairs, ...	...	...	Do.
Spindleside, Cleland, ...	...	...	Do.
Broomhill, Larkhall, ...	...	...	Alterations to byre.
Bent, Bellshill, ...	...	...	Do.

Ventilation of Byres.—The provision of open ridge ventilators to dairy byres received a further impetus during the year. The advantages of this form of ventilation was impressed upon all cow-keepers during visits to byres where improved ventilation is necessary.

Drinking Bowls.—The installation of automatic drinking bowls for dairy animals was reported to be on the increase.

Registration.—During the year 75 applications for registration were received, and, including the applications continued from the previous year, 102 certificates of registration were granted and 8 were refused registration. The number of businesses discontinued during the period under review was 21, leaving a total of 886 registered dairies at the close of the year. The approximate number of dairy animals in registered premises was 14,300.

The general conditions and cleanliness of the few exempted premises within the Middle Ward Area was found to be good.

Milk and Dairies (Scotland) Order, 1925.—Several dairymen were dealt with during the year for failing to carry out the requirements of Articles 5 to 16 of the Milk and Dairies Order, and a case under Article 15 of the Order was reported to the Procurator-Fiscal of a farmer who delivered milk to a common carrier *or other person* for transit in unsealed vessels. When the case was called in Court the respondent's agent stated that his client was in use to sell his milk to the farmer who drove the motor lorry conveying the milk and who was therefor not a common carrier but owner of the milk in question. After enquiry, the Fiscal dropped the case.

General.—The standard of cleanliness in all dairy premises throughout the Middle Ward Area shows a marked improvement, but we have still a long way to go. When next Annual Report comes to be written, we hope to give some interesting information as to the bacterial content and cleanliness of the milk produced and sold in the District.

Houses Let in Lodgings.

As stated in former Annual Reports, the registration of houses let in lodgings is still in abeyance, owing to the scarcity of housing

accommodation in the District. Numerous inspections, however, were made of houses where single lodgers were kept or apartments sub-let to families, and action was taken where gross overcrowding was found.

Offensive Trades.

There are eleven private slaughter-houses in the District, situated as follows:—Caldercruix, Chapelhall, Cleland (3), Greengairs, Hart-hill (2), Longriggend, Newarthill, and Hareshawhead, Strathaven. In the course of the year regular visits of inspection were made, and, although the structural conditions are not quite satisfactory, the premises were mostly all found in a clean condition. Three contraventions of the Local Authority's Bye-laws were committed by a slaughterer of cattle at Caldercruix, but, after service of a notice, the necessary work of limewashing and cleansing was carried out, and have since been regularly attended to.

Public Abattoirs.—There are seven abattoirs in operation belonging to the Local Authority, and these are situated at Baillieston, Blantyre, Bellshill, Larkhall, Shotts, Stonehouse, and Strathaven.

Other Offensive Businesses.—The operations at the knackery at Omoa, where the manufacture of manure is also engaged in, continue to be conducted in a satisfactory manner.

During the year an application for the sanction of the Local Authority to the establishment of the business of gut cleaner was received. The premises are situated at 11 Clark Street, Blantyre, and formerly were in use as an aerated-water factory. The statutory advertisement was made, and, no objections having been lodged, the Local Authority sanctioned the establishment of the business, which has since been conducted in a satisfactory manner.

Unsound Food.

During the year 981 inspections were made, and three seizures were made by the Sanitary Staff, viz. :—Plums, 7 lbs. ; apples, 9 lbs. ; and butchermeat, 60 lbs. Particulars as to the inspection of meat are given in the District Meat Inspector's Report.

Meat Regulations.

Storage of Meat.—An application was received for a certificate under Section 12 of the Public Health (Meat) Regulations (Scotland), 1924, of approval of accommodation at Caerlaverock, Foxley, Toll-cross, for the storage of meat food products. Alterations were satisfactorily carried out to meet the requirements of the Regulations and the necessary certificate was granted to the applicant.

Food Inspection.

During the year numerous inspections were made of shops, vans, &c., where foodstuffs were exposed for sale, and it was found that the quality of the articles exposed for sale was good. With few exceptions, the shops were also kept in a clean condition, but warnings were administered where necessary. Complaints were received from tenants of dwellings above a fried-fish shop of smells entering the houses in the evening. The matter was taken up with the shopkeeper, who replaced an old-fashioned range with one of modern design, since when no further complaints have been received.

An improvement in the outfit of fish hawkers was noticeable, several additional vehicles being fitted with dust-proof boxes for the conveyance of fish. This is a great advance on the old methods of fish hawking, and will, no doubt, be adopted by others in course of time, as it means more custom from people who appreciate such efforts towards cleanliness.

Pigstyes.

The inspections made during the year numbered 284. Two applications for sanction to erect pigstyes were granted by the Local Authority. With a few exceptions, all the premises were found to be kept in good order, and free from nuisance conditions. A complaint was received as to smells emanating from a piggery at Nook, East Kilbride. It was found that a wooden erection adjoining the public highway was being used as a pigstye without the sanction of the Local Authority, and this was dismantled on the order of the Department.

Burial Grounds.

The various burial grounds throughout the District continue to be kept in good order. At New Monkland Cemetery improved lavatory accommodation is being provided for visitors.

Churchyards, &c.—A number of interments was carried out in the old churchyard at Stonehouse in a satisfactory manner, and in East Kilbride churchyard several burials also took place. Conditions in the latter churchyard were found to be unsatisfactory, and in two instances permission to inter was refused. In another instance permission was only given after a second portion of a lair had been opened and sufficient depth obtained.

The other old churchyards and burial grounds continue to be kept in a satisfactory condition.

J. MILLAR.

County and District Sanitary Inspector.

District Offices,
Hamilton, 28th April, 1929.

COUNTY HOSPITAL

NEAR

MOTHERWELL

REPORT BY THE PHYSICIAN-SUPERINTENDENT,
JOHN REID, M.D., D.P.H., F.R.F.P.S.

1928

At the beginning of the year 178 cases were in residence. Throughout the year 2,321 were admitted, making a total of 2,499. Of these, 2,134 were discharged recovered or improved, 178 died, and 187 were in hospital at the end of the year. The total number of admissions was 371 greater than in 1920 when scarlet fever was epidemic. This high figure surpassed all previous records and was chiefly due to an increase in diphtheria, pneumonia, and puerperal fever cases.

SCARLET FEVER admissions were approximately about what might be taken as normal. The type of disease was mild and the death-rate under 1 per cent.

DIPHTHERIA notifications exceeded all previous records by 152. A large number of bacteriological cases was admitted. However, very severe or semi-malignant cases were definitely increased. The death-rate was 5.3 per cent. of the clinical discharges, or approximately 3 per cent. more than for the previous year.

ENTERIC FEVER was somewhat more prevalent. In all 14 true cases were treated; 3 were true enterics and 11 paratyphoid B.

PUERPERAL SEPSIS numbers have been maintained. 108 cases notified. There is still the tendency to keep the patient at home until she is septicæmic, and in many cases, moribund before removal to hospital. This is particularly marked in cases coming from other Local Authorities. Accommodation is still available for puerperal pyrexia. Most early cases can be cured by appropriate treatment; moribund cases are hopeless and better left at home.

PNEUMONIA numbers have slightly increased. Here again too many cases were not removed to hospital until the friends were exhausted and the patient dying. Nothing but harm, and a general feeling of resentment against all concerned results when a pneumonia is removed a long distance in the middle of the night to hospital, and expires within an hour. An acute lobar pneumonia in an adult who has been ill four days, should not be disturbed until after the crisis.

TUBERCULOSIS work has been restricted, due to other demands on the available beds.

VENEREAL DISEASES indoor work shows a definite increase. Much useful work was done among women and children.

MEASLES AND WHOOPING-COUGH.—Although no new accommodation was available a fair number of measles cases was treated. It should be noted that no case was refused admission.

RADIOLOGICAL WORK.—The dispensaries and sanatoria continued to take full advantage of the X-ray facilities in doubtful cases.

The number of admissions from ALL DISEASES was greatest in the month of October. The total for the whole month was 248. During the week ending 20th October, 63 cases were admitted. The greatest number admitted on one day was 18, on 5th November. The average daily number of patients resident was 210·3. The greatest number resident on any one day was 287, on 9th November; and the smallest, 147, on 5th August.

The average duration of residence of all cases discharged was 34·1 days; of all recovered cases, 36 days; and of all fatal cases, 11·9 days.

The fatality rate, calculated on all cases discharged, was 7·6 per cent. This figure includes all cases dying in hospital.

The diagnosis of the medical attendant was revised in 484 cases, or 20·9 per cent. of the total discharged.

Request for removal of patients to hospital was made by the medical attendant in 30·5 per cent. of the cases, and by the Public Health Department in 69·4 per cent.

ACCOMMODATION.—Throughout most of the year the bed accommodation was taxed to its utmost. During the winter months

overcrowding was dangerous. Although the Middle Ward District Committee and the Medical Officer of Health are desirous that every facility should be given to the public and practitioners for hospital treatment, a review of the corrected diagnoses raises the suspicion that unfair advantage is being taken of their facilities. Of 2,312 cases discharged, the diagnosis was revised in 484, or nearly 21 per cent. Although a modern isolation hospital can be run more or less like a general hospital the limit can be easily reached when large numbers of non-infectious cases are admitted.

At the present time pneumonia seems to give rise to most trouble in diagnosis. One-third of the cases was wrongly diagnosed. When cases like eczema, abscess of chest wall, miscarriage and gonorrhœa, without the slightest suspicion of pulmonary signs or symptoms, are sent in as acute lobar pneumonias one cannot but feel that undue advantage is being taken of the hospital.

Another point which calls for the co-operation of practitioners is the time of notification of cases. There is no reason whatsoever for requesting the removal of a desquamating scarlet case or a positive swab on a Sunday, or for desiring the removal of a dying pneumonia or a septicæmic puerperal case which has been attended for days, in the middle of the night. Removal of such cases in a cold, wet night is definitely harmful to the patient.

SCARLET FEVER.

54 cases of scarlet fever were in hospital at the beginning of the year. Throughout the year 783 patients were admitted. 85 were wrongly diagnosed. 5 other cases proved to be suffering from scarlet fever. Of these 757 cases, 661 were discharged well, 5 died, and 91 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out in 94·5 per cent. of the cases in the first week of illness, 3·9 in the second week, and 1·5 per cent. during the third week or later.

THE AVERAGE DAY OF DISEASE of all cases was 3·5 days.

THE AVERAGE DURATION OF RESIDENCE of all cases was 43·6 days; of recovered cases, 44 days; and of fatal cases, 10 days. The following table indicates the period of residence of the 661 recovered cases:—

Week of Discharge.	No. of days in Residence when Discharged.								No. of Cases in each day.								No. of Cases in each week.
Under fifth,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Fifth, - - -	29	30	31	32	33	34	35		1	8	15	11	23	26	27		111
Sixth, - - -	36	37	38	39	40	41	42		33	30	40	21	51	69	26		270
Seventh, - -	43	44	45	46	47	48	49		52	34	28	10	9	10	5		148
Eighth, - - -	50	51	52	53	54	55	56		9	6	10	5	7	7	1		45
Ninth, - - -	57	58	59	60	61	62	63		6	3	7	3	3	3	1		26
Tenth, - - -	64	65	66	67	68	69	70		5	2	1	4	4	3	2		21
Over ten weeks, -	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	29
Total Number of Cases, - - - -																	661

TYPE OF DISEASE.—608, or 91·2 per cent., of the total cases discharged, were classified as mild; 35, or 5·3 per cent., as moderately ill; and 23, or 3·5 per cent., as very severe. The latter group includes 1 toxic case.

THE FATALITY RATE, as calculated on the discharges, was 0·75 per cent. Of the 5 fatal cases, 2 were males and 3 females. The average age was 3·2 years; the average day of illness, 3·2 days; and the average residence, 10 days.

CORRECTED DIAGNOSIS.—Of the cases notified as scarlet fever, 10·1 per cent. were wrongly diagnosed. These were:—Abscess, 1; albuminuria, 1; chickenpox, 2; chronic otitis media, 1; chronic rhinitis, 1; diphtheria, 3; doubtful, 24; endocarditis, 1; ichthyosis, 1; measles, 4; naso-pharyngitis, 1; negative, 33; pneumonia, 2; sore throat, 6; urticaria, 1; whooping-cough, 3.

COMPLICATIONS.—34·08 per cent. of the discharges had one or more complications.

Glands.—92, or 13·6 per cent. of the cases discharged, showed glandular enlargement. These were:—Non-suppurative adenitis, 88; suppurative adenitis, 4. All degrees of glandular involvement are included.

Ear.—55, or 8·2 per cent., developed otitis media. 2 were moist on discharge, and 4 went on to mastoiditis.

Heart.—8 cases, including 5 of arrhythmia, showed some functional disturbance. Other 4 cases developed organic disease of the heart.

Nose.—51, or 7·6 per cent., developed rhinitis.

Joints.—16, or 2·4 per cent., developed varying degrees of arthritis.

Kidney.—12, or 1·8 per cent., had true nephritis, and 1 mild albuminuria.

Lungs.—Broncho-pneumonia, 3; bronchitis, 3.

Eye.—Conjunctivitis, 2.

Skin.—Dermatitis, 1.

Sepsis.—Abscesses, 3; paronychia, 8; sores (various), 3.

Other Complications.—Enteritis, 1; tonsillitis, 1; positive swabs, 18. The organism in 2 nasal carriers was avirulent.

Other Conditions present on Admission and not related to the Attack of Scarlet Fever.—Burn, 1; chronic eczema, 2; chronic otitis media, 3; chronic rhinitis, 1; facial paralysis, 2; ichthyosis, 1; impetigo, 1; organic heart disease, 5; psoriasis, 1; rickets, 2; scabies, 1; tinea tonsurans, 1.

The two following tables show the age-periods and week of illness at which the complications occurred :—

AGE.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COMPLICATIONS.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
Under 1 Year, -	—	—	—	—	—	—	—	—	—	—	—
-2 " -	1	—	—	1	2	—	—	2	—	—	—
-3 " -	3	4	—	2	1	—	—	6	—	—	1
-4 " -	—	15	1	5	—	—	1	10	—	—	—
-5 " -	—	12	3	3	2	—	1	6	1	1	3
-6 " -	—	12	4	7	3	1	—	11	—	1	—
-7 " -	—	6	—	2	1	—	1	3	—	—	1
-8 " -	—	9	2	1	3	—	3	3	1	1	2
-9 " -	—	4	2	—	—	—	1	1	—	—	—
-10 " -	—	5	1	—	—	—	—	2	—	—	1
-15 " -	—	15	—	3	2	3	—	5	—	3	1
-20 " -	—	2	2	1	—	—	—	2	1	6	1
Over 20 " -	—	4	—	—	1	—	1	—	1	4	2
Total, -	4	88	15	25	15	4	8	51	4	16	12

WEEK OF ILLNESS.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COMPLICATIONS.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
First, - -	2	34	4	4	5	—	—	25	1	9	1
Second, - -	1	18	2	11	4	—	3	6	1	2	2
Third, - -	1	17	3	6	—	2	2	7	1	1	4
Fourth, - -	—	12	2	3	1	1	2	3	1	1	3
Fifth, - -	—	4	4	—	2	—	—	6	—	2	2
Sixth, - -	—	1	—	1	1	—	1	2	—	—	—
Seventh, - -	—	1	—	—	1	1	—	1	—	1	—
Eighth, - -	—	—	—	—	1	—	—	1	—	—	—
Ninth, - -	—	1	—	—	—	—	—	—	—	—	—
Total, -	4	88	15	25	15	4	8	51	4	16	12

Scarlet Fever Antitoxin.

Number of Cases.	Maker.	Average.	Serum Rashes.	
			Urticarial	Morbiliform
32 (1 fatal), - -	B. W. & Co.	17.5 c.c.	3	—
8 (2 fatal), - -	P. D. & Co.	23 c.c.	—	1

Of the 40 cases which had serum, 7 were mild, 13 moderate, and 20 severe. 21, or 52.5 per cent., of those 40 serum-treated cases developed one or more complications.

Diphtheria Antitoxin.

Number of Cases.	Maker.	Average.
28 ...	B. W. & Co. ...	7,500 units.

2 cases had whooping-cough vaccine and 1 diphtheria vaccine.

MIXED INFECTIONS.—Chickenpox, 4; diphtheria, 1; measles, 2; mumps, 1; whooping-cough, 7.

CROSS INFECTIONS.—Chickenpox, 2; measles, 1; mumps, 1.

“RETURN” CASES.—28 days is taken as the period within which a case is regarded as a “return.” In the following figures, cases which proved on observation not true cases have been disregarded. 5 cases presumably infected 5 others. All the “infecting” cases were clean on discharge.

The infectivity rate is 0.75 per cent. of all true cases discharged.

Summary of the most important statistics relating to scarlet fever during the past six years:—

	1923.	1924.	1925.	1926.	1927.	1928.
Number of scarlet fever patients discharged recovered, - -	879	818	800	707	465	661
Number of presumably infectious cases discharged, - - -	24	8	20	9	12	5
Infectivity rate, - - -	2.7	0.9	2.5	1.2	2.5	0.75
Number of deaths from scarlet fever, - - - -	19	16	16	7	3	5
Fatality rate, - - - -	2.1	1.9	1.9	0.98	0.64	0.75
Average duration in days of the cases discharged, - - -	49.2	50.2	51.9	50.6	51.9	43.6

Ionisation for Otitis Media.

58 cases of otitis media were treated with zinc ionisation. All the cases were first tried for a short period with the usual antiseptic treatment.

In 43 cases of scarlet fever, including 7 of chronic otitis media, cure apparently resulted in 39, and 4 were moist after varying periods of treatment.

15 other patients (other diseases) with otitis media were either cured or improved.

Both ears were involved in 13, the right ear in 29, and the left ear in 16. The average number of applications given was 4.5.

Schick Test in Scarlet Fever.

AGE-PERIODS.

	1	2	3	4	5	6	7	8	9	10	Over 10	Total.
Positive,	—	17	56	56	67	59	49	40	18	25	66	453
Negative,	2	14	23	13	27	28	24	32	20	40	97	320
Total,	2	31	79	69	94	87	73	72	38	65	163	773

447 of the susceptibles were immunised with toxoid-antitoxin.

Prophylaxis in Other Diseases.

Children admitted to hospital suffering from other diseases, like measles, whooping-cough, tuberculosis, &c., had the Dick Test performed, and the susceptibles were immunised.

Of 146 cases, 34 were positive, and of these, 28 were immunised against scarlet fever.

Results of Mastoid Operation.

In 12,098 cases of scarlet fever, 1,118 children, or 9.2 per cent., developed otitis media. Of those 1,118, 36, or 3.2 per cent., developed acute mastoiditis.

An endeavour was made to trace the 36 cases in whom the mastoid antrum has been opened, in order to determine how far a cure had resulted.

Only 22 cases were traced with the following results:—5 were apparently cured; in 8, discharge was intermittent; 4 showed some degree of deafness as tested by the conversational and whispering voice; and 5 others presented some degree of deafness with discharge.

DIPHTHERIA.

58 cases of diphtheria were in hospital at the beginning of the year, 571 were admitted as such, 219 were wrongly diagnosed, and 5 others proved to be cases of diphtheria. Of these 415 patients, 353 were discharged well, 20 died, and 42 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out within the first three days of illness in 59·7 per cent. of the cases. In the fatal cases the average duration of illness prior to admission was 4·4 days.

THE AVERAGE DAY OF DISEASE of all cases on admission was 3·5 days.

DURATION OF RESIDENCE.—The average duration of residence of all cases was 40·8 days; of recovered cases, 42·2 days; and of fatal cases, 16·8 days.

TYPE OF DISEASE.

Faucial Diphtheria.—In 325 cases, including 12 fatal ones, the faucial region of the throat was affected.

Mild.—In 171 instances the exudate was limited, with little or no toxæmia. 4 cases had serum prior to admission. The average amount of serum given in hospital was 6,300 units. 2 cases had scarlet fever antitoxin and 1 anti-tetanic serum.

Complications and Sequelæ.—Albuminuria, 2; arrhythmia, 6; conjunctivitis, 1; eczema, 1; palatal paralysis, 1; tinea, 1; vaginitis, 1; urticarial rash, 11.

Of 6 carriers, 4 had the tonsils removed.

2 patients had, in addition, whooping-cough.

Moderate.—In 77 cases the membrane or exudate was more extensive and accompanied by considerable toxæmia. The average amount of antitoxin given was 17,200 units. 3 patients had in addition scarlet fever antitoxin.

Complications and Sequelæ.—Adenitis, 1; albuminuria, 2; arrhythmia, 4; drop foot, 1; otitis media chronica, 1; palatal paralysis, 1; paronychia, 1; tonsillar abscess, 1; scarlatiniform rash, 1; urticarial rash, 11.

In 2 instances the tonsils were enucleated.

1 case developed scarlet fever in hospital.

Severe.—In 77 cases, including 12 fatal ones, toxæmia was profound. The average amount of serum given was 47,700 units. In several of the worst cases over 100,000 units were given between the intravenous and intramuscular routes. 18 cases had scarlet fever antitoxin.

Complications and Sequelæ.—Adenitis, 4; albuminuria, 4; epistaxis, 1; nephritis, 2; pneumonia, 1; rhinitis, 3; suppression of urine, 1; tonsillitis, 1; tubercular gland, 1; V.S. murmur, 1; vaginitis, 1; urticarial rash, 6; morbilliform rash, 2; arrhythmia, 7; cardiac paresis, 14; drop foot, 1; palatal paralysis, 5.

In 1 instance the tonsils were removed.

Laryngeal Diphtheria.—In 25 cases, including 3 fatal ones, the larynx was involved.

Mild.—In 15 instances the stenosis was slight. The average amount of serum given was 8,000 units.

Complications and Sequelæ.—Chronic otitis media, 2; urticarial rash, 1.

Moderate.—5 cases, including 1 fatal one, showed signs of more extensive involvement. The average amount of serum given was 16,000 units.

The fatal case died from general tuberculosis.

Complications and Sequelæ.—Otitis media, 1. 1 case had, in addition, whooping-cough and chickenpox on admission.

Severe.—In 5 cases, including 2 fatal ones, the obstruction was extreme and required immediate operative interference.

Complications and Sequelæ.—Tracheotomy, 3; intubation, 2. A child was admitted from another hospital with a retained tracheotomy tube. This was cured.

Faucial and Laryngeal Diphtheria.—The faucial and laryngeal regions were involved in 14 cases.

In 4 mild cases the average amount of serum given was 12,000 units.

Complications and Sequelæ.—Vaginitis, 1; urticarial rash, 1. 1 case had whooping-cough.

In 7 cases of moderate severity an average of 18,000 units of serum was required.

Complications and Sequelæ.—Albuminuria, 1; arrhythmia, 1; otitis media, 1.

In 3 severe cases an average of 39,000 units of serum was given. 2 had tracheotomy performed, and 1 intubation.

Faucial and Nasal Diphtheria.—Of 7 cases, 4 were fatal.

1 moderate case had 12,000 units of serum and 10 c.c. of scarlet fever antitoxin.

6 severe cases had on an average 84,700 units of serum. Scarlet fever antitoxin was given in all instances.

Complications and sequelæ.—Cardiac paralysis, 1; urticarial rash, 1.

Faucial, Nasal, and Laryngeal Diphtheria.—1 severe case died. This patient had 8,000 units of serum in addition to 20 c.c. of scarlet fever antitoxin.

1 missed case was admitted with palatal paralysis.

The following table summarises the sites of membrane in the total cases discharged :—

SITE OF MEMBRANE.	MILD.		MODERATE.		SEVERE.		TOTAL	
	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.
Faucial, - - - - -	171	—	77	—	65	12	313	12
Laryngeal, - - - - -	15	—	4	1	3	2	22	3
Faucial and laryngeal, - -	4	—	7	—	3	—	14	—
Faucial and nasal, - - -	—	—	1	—	2	4	3	4
Faucial, nasal, and laryngeal,	—	—	—	—	—	1	—	1
Paralysis, - - - - -	1	—	—	—	—	—	1	—
							353	20

DIPHTherITIC PARALYSIS.—In 42 cases, or 11·2 per cent. of the clinical cases, paralysis in one form or another was noted. The regions affected were :—Heart, 15; palate, 7; foot, 2; arrhythmia, 18.

MIXED INFECTIONS.—Diphtheria and whooping-cough, 3; diphtheria, whooping-cough, and chickenpox, 1; diphtheria and scarlet fever, 1,

COMPLICATIONS.—31 per cent. of the clinical cases developed one or more complications. This figure includes serum rashes.

OTHER CONDITIONS PRESENT ON ADMISSION.—Chronic otitis media, 5; eczema, 1; general tuberculosis, 1; tubercular glands, 1; tinea, 1; vaginitis, 2.

CORRECTED DIAGNOSIS.—219, or 58·7 per cent. of the cases discharged, were wrongly diagnosed:—Bronchitis, 1; cerebro-spinal fever, 1; hæmophilia, 1; laryngismus stridulus, 1; marasmus, 3; measles, 7; naso-pharyngitis, 1; negative, 12; pneumonia, 4; positive swab, 148; rhinitis, 1; rickets, 1; scarlet fever, 3; sore throat, 24; subdural hæmorrhage, 1; tonsillar abscess, 5; tonsillitis, 1; tuberculosis, 1; whooping cough, 3.

CASES WHICH PROVED TO BE DIPHTHERIA ON OBSERVATION.—Scarlet fever, 3; encephalitis lethargica, 1; Vincent's angina, 7.

FATALITY RATE.—20 cases, or 5·3 per cent. of the clinical cases, were fatal.

FATAL CASES.—Of the 20 deaths, 13 were males and 7 females. The average age was 6·1 years; the average duration of illness prior to admission was 4·4 days; and the average residence in hospital was 16·7 days.

The average amount of serum given was 67,600 units. 3 had over 100,000 units and 1 had 240,000 units.

14 of the fatal cases had been ill more than 3 days before being sent to hospital or having antitoxin. In one instance the child had been neglected for 10 days.

OPERATIVE TREATMENT.—In 5 cases tracheotomy was performed. All recovered. In other 3 instances the larynx was intubated. 2 of these died. The fatality rate was therefore 25 per cent. of the cases operated on.

ANTITOXIN.—4, or approximately 1 per cent. of the cases discharged, received serum before admission to hospital. The average amount given in all clinical cases discharged was 18,400 units. In 31 cases scarlet fever antitoxin was administered with benefit. In the more malignant cases the intravenous route was adopted. 6 children had over 100,000 units given intravenously and intramuscularly.

After-effects were noted in 34, or 9·1 per cent. of the 373 clinical cases. This fairly high figure is probably due to the number who had scarlet fever serum, which gives rise to more rashes than diphtheria antitoxin. The rashes were:—Urticarial, 31; morbilliform, 2; scarlatiniform, 1. Messrs. Burroughs, Wellcome, & Co.'s concentrated antitoxin was used throughout the year.

BACTERIOLOGICAL CASES.—148 cases were bacteriological cases without clinical signs and are not classed as true diphtherias.

66 were Schick tested before being given serum; 39 were positive and 27 negative.

In 31 instances the organism was tested for virulence. 9 were virulent (2 Schick positive, 4 Schick negative) and 22 were avirulent (8 Schick positive, 1 Schick negative).

In 17 instances, where difficulty was experienced in eradicating the organism, the tonsils were enucleated.

Dick Test.

Diphtheria cases had the Dick test performed as a routine, and the susceptibles immunised. Of 492 notified cases, 165 were positive, and 128 immunised against scarlet fever.

AGE-PERIODS.											
	1	2	3	4	5	6	7	8	9	10	Over 10
Positive,	1	8	32	21	21	19	16	14	10	8	15
Negative,	4	9	18	32	37	37	33	31	28	20	78
Total,	5	17	50	53	58	56	49	45	38	28	93

ENTERIC FEVER.

At the beginning of the year 1 case of enteric fever was in residence; 20 were notified as such; 8 of these were wrongly diagnosed; and 1 other proved to be enteric fever. Of these 14 cases, 12 recovered and 2 were fatal.

REMOVAL TO HOSPITAL was carried out during the first week of illness in 1 case, or 7.1 per cent., during the second week in 10 cases, or 71.4 per cent.; and during the third week in 3 cases, or 21.4 per cent.

THE AVERAGE DAY OF DISEASE was 11.7 days, and the average duration of residence in hospital 37.7 days.

THE AVERAGE AGE was 20.2 years.

SEX.—Male, 6; female, 8.

THE FATALITY RATE was 14.2 per cent. A male, aged 27 years, suffering from paratyphoid B. perforated, and a female, aged 62 years, also suffering from paratyphoid B. developed hypostatic pneumonia.

TYPE OF DISEASE.—Typhoid, 3; paratyphoid B., 11. The typhoids comprised a mild, a moderate, and a severe case. Of the paratyphoids, 6 were mild and 5 severe.

Table showing type of disease and time of admission to hospital:—

Week of Illness.	Mild.		Moderate.				Severe.		Total Cases and Week of Illness.	
			Recovered.		Died.					
	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.
First, - -	1	33.3	—	—	—	—	—	—	1	7.1
Second, - -	2	66.6	6	75.0	1	50.0	1	100	10	71.4
Third, - -	—	—	2	25.0	1	50.0	—	—	3	21.4
Fourth, - -	—	—	—	—	—	—	—	—	—	—
Total, - -	3	21.4	8	57.1	2	14.2	1	7.1	14	—

COMPLICATIONS.—In 5, of the 14 cases, complications were present. These were:—Adenitis, 1; appendix abscess, 1; broncho-pneumonia, 1; hypostatic pneumonia, 1; perforation, 1.

CORRECTED DIAGNOSIS.—Flexner infection, 1; negative, 1; positive Widal reaction, without clinical signs, 6.

OTHERS.—1 case notified as pneumonia proved to be a case of enteric fever.

CASE of PARATYPHOID B. INFECTION *with* APPENDIX ABSCESS.—A married woman, æt. 28 years, was sent from Leadhills notified as enteric fever. For 12 days before admission she complained of shivering, headache, drowsiness, and some indefinite abdominal pain with looseness of bowels.

On admission to hospital on the 12th day of disease she had a temperature of 101°, and pulse of 120 per minute. She was fairly comfortable and did not complain of pain. A profuse crop of coarse rose spots was present all over the trunk and limbs, the tongue was furred and moist, pupils dilated, abdomen full, particularly in the right iliac fossa, but with no particular tenderness, the spleen was not palpable, and the stools were loose and dark-coloured. The profuse crop of coarse rose spots at once suggested a paratyphoid infection. This was confirmed by an agglutination of 1,350 units per c.c. for paratyphoid B.

At midnight of the fourth day of residence the patient complained of sudden and acute abdominal pain. This was accompanied by a rigor and definite abdominal rigidity.

The diagnosis of perforation was made. When the abdomen was opened 12 hours after, no free fluid was present as when a perforation occurs. Loose adhesions in the right iliac fossa enclosed an abscess with a perforation in the base of the appendix. The appendix was removed and the cavity drained. The patient went through quite a typical paratyphoid course, and was discharged well after 10 weeks.

The point of interest seemed to be (a) was it primarily an appendix abscess which had burst during the course of an enteric infection? or (b) was it a slow typhoid perforation at the base of the appendix which had given rise to an abscess?

Dr. Dunlop, of the University Pathological Department, very kindly examined the specimen, and the following is his report:—

“The appendix lesion is certainly not due simply to a sloughing through of a patch of necrosis in the lymphoid tissue, such as might occur directly as a complication of a pure ‘enteric’ infection about the third week. The base of the organ (where the perforation occurred)

is the seat of inflammatory thickening of simple septic type, associated with the presence of enormous numbers of organisms (cocci as well as bacilli) and with considerable growth of granulation tissue. The inflammatory mischief has, therefore, been at work in this situation for some time, and its histological characters are not those of a typhoid lesion. But, and this I take it is what will probably interest you, the occurrence of the septic inflammatory process has probably been determined by the enteric infection.

“Here are my reasons for this opinion:—(1) In, and adjacent to, the areas of inflammatory reaction there is an abundance of large mononuclear cells of the type which characterise a typhoid lesion. (Para-B., of course, gives rise to histological changes similar to those induced by *B. typhosus*); (2) the granulation tissue production associated with the inflammatory mischief is such as may well have occurred in the course of a fortnight or less.

“It seems to me, therefore, that the story is very probably as follows:—Patient contracts an ‘enteric’ infection (para-B. from what you tell me); the lymphoid tissue at the base of the appendix becomes the seat of the specific changes characteristic of this disease; as a result of the accumulation of large mononuclear cells, &c., in and around this lymphoid tissue, leading to local interference with blood supply, the area involved is devitalised, and becomes susceptible to attack by the pyogenic organisms (cocci and bacilli) normally present in the lumen of the appendix. Thus a simple appendicitis, of sub-acute type, is determined by the ‘enteric’ infection.

“In support of this suggested explanation, there is:—(1) the histology of the specimen, to which I have already referred; (2) the fact of which you will be aware that, in enteric infections, the lymphoid tissue of the appendix does sometimes share in the changes which are ordinarily restricted to the Peyer’s patches of the small intestine (*vide* ‘Textbook of Pathology’—Muir, and Kaufmann’s ‘Lehrbuch der Speziellen Pathologischen Anatomie’); (3) published cases of (a) perforation of appendix in the course of typhoid fever (*B. typhosus*); (b) appendicitis complicating *B. typhosus* infection, and attributed, primarily, to this organism; (c) recorded case of appendicitis occurring in a para-B. infection, and again attributed, primarily, to the ‘enteric’ infection. Schottmüller (‘Handbuch der Inneren Medizin’—Mohn & Staehelin), in an exhaustive review of the ‘Typhöse Erkrankungen,’ states that the occurrence of appendicitis at the beginning, or in the course, of a para-B. infection is occasionally to be expected, and that the appendicitis is not just an intercurrent disease, but a genuine complication of the para.-B. infection.”

PUERPERAL FEVER.

9 cases were in hospital at the beginning of the year, 108 were admitted, 7 were wrongly diagnosed, and 2 others proved to be cases of puerperal fever. Of these 112 cases, 73 recovered, 31 died, and 8 were in hospital at the end of the year.

TYPE OF DISEASE.—Mild, 31 (including 9 pyrexias); moderate, 31; severe, 42.

THE AVERAGE AGE of the patients was 30·1 years; 7 were under 20 years of age, 22 between 21 and 25 years, 21 between 26 and 30 years, 30 between 31 and 35 years, 19 between 36 and 40 years, and 5 over 40 years of age.

THE AVERAGE DURATION OF ILLNESS of all cases prior to admission was 6 days; of recovered cases, 5 days; and of fatal cases, 8·3 days.

THE AVERAGE DURATION OF RESIDENCE was 31·6 days.

ATTENDANCE AT BIRTH.—Doctor, 8; midwife, 29; doctor and midwife, 41; hospital cases, 23; nil, 3.

THE FATALITY RATE was 29·6 per cent.

COMPLICATIONS AT BIRTH.—Instrumental delivery, 21; laparotomy, 1; miscarriage, 7; abortion, 1; version, 1; cæsarian section, 2; hæmorrhage, 1; perineal tears, 12.

NUMBER OF PREGNANCY at which disease occurred:—

Pregnancy.	No. of Cases.		Instrumental Delivery.	
	Recovered.	Died.	Recovered.	Died.
1	23	10	6	4
2	14	2	1	1
3	4	4	1	2
4	9	4	1	1
5	7	1	—	—
6	5	—	1	—
7	3	2	—	—
8	2	4	—	1
9	2	1	1	—
10	2	3	1	—
12	2	—	—	—
Total, - -	73	31	12	9
	104		21	

COMPLICATIONS DURING THE FEVER.—Abscesses, 2; anæmia, 11; cardiac disease, 1; chronic nephritis, 1; cystitis, 1; effusion, 1; empyema (double), 2; enteritis, 2; erysipelas, 1; fits, 1; infarction, 1; mastitis, 1; miliary tuberculosis, 1; pelvic cellulitis, 1; peritonitis, 5; rigors, 1; thrombosis, 7.

CORRECTED DIAGNOSIS.—Abortion, 1; anæmia, 1; mastitis, 2; pulmonary tuberculosis, 1; septic wound, 1; thrombosis, 1.

1 case notified as pneumonia and 1 as meningitis proved to be cases of puerperal fever.

1 case was treated who had had puerperal fever three times.

BLOOD CULTURES.—Of 99 blood cultures taken, streptococci were obtained in 6 only.

TREATMENT.—It is difficult to assess the relative value of various remedies employed, by figures, where numbers are small.

The death-rate of approximately 30 per cent. includes all fatal cases although dying within an hour of admission, and where obviously no remedy was of any value.

Throughout the year glycerine drainage, organic arsenic, and sera of various kinds were used.

GLYCERINE.—In 54, of the 104 true cases, glycerine was used. The death-rate in this group was 25·9 per cent., compared with 34 per cent. in 50 cases where no glycerine was used.

ORGANIC ARSENIC.—In 94 cases where organic arsenic was used the death-rate was 25·5 per cent.

SERUM.—Puerperal antitoxin, scarlet fever antitoxin, antitoxin and anti-bacterial streptococcal serum, and Welchii serum were utilised in 54 cases. The death-rate in the serum treated cases was 38·8 per cent.

It should be noted that especially in serious cases these remedies were used concurrently, and that serum was tried more particularly in serious cases. In 45 cases, however, arsenic was used alone, and in this small group the death-rate was 15·5 per cent. Disregarding the obvious fallacies of small numbers, the treatment of moribund cases and concurrent remedies, the general impression left is that the balance is in favour of arsenic, and more particularly in those cases suffering from severe anæmia.

ERYSIPELAS.

2 cases were in hospital at the beginning of the year, 50 were admitted, and 3 were wrongly diagnosed. Of these 49 cases, 40 recovered, 4 died, and 5 were in hospital at the end of the year.

SEX.—Male, 16 female, 28.

TYPE OF DISEASE.—Mild, 19; moderate, 18; severe, 7.

SITUATION OF DISEASE.—Face, 36; leg, 5; arm, 1; head, 1; wandering, 1.

THE AVERAGE AGE was 29·7 years; the average duration of illness prior to admission was 6 days; the average residence of all cases was 17·2 days; of recovered cases, 17·7 days; and of fatal cases, 11·5 days.

THE FATALITY RATE was 9 per cent. of the cases discharged.

COMPLICATIONS.—Cardiac failure, 1; mental, 1.

PREVIOUS CONDITION.—1 case developed erysipelas after vaccination.

CORRECTED DIAGNOSIS.—Axillary abscess, 1; cellulitis, 1; mastoiditis, 1.

TREATMENT.—Erysipelas antitoxin, 2; erysipelas antitoxin and scarlet fever antitoxin, 2; scarlet fever antitoxin, 2.

TUBERCULOSIS.

1 case of tuberculosis was in hospital at the beginning of the year; 64 were admitted, 9 were wrongly diagnosed, and 16 others proved to be cases of tuberculosis. Of these 72 cases, 54 recovered and 18 died.

The following table shows the age-periods and sexes of the cases discharged :—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
-5 years, -	3	3	6	6	9	9
- 10 " -	5	8	—	—	5	8
- 15 " -	2	3	—	—	2	3
- 20 " -	6	4	1	2	7	6
- 25 " -	—	4	1	1	1	5
- 30 " -	1	2	—	—	1	2
- 35 " -	2	2	—	1	2	3
- 40 " -	2	2	—	—	2	2
Over 40 " -	4	1	—	—	4	1
	25	29	8	10	33	39

SEX.—Male, 33; female, 39.

THE AVERAGE AGE was 17 years, and the average residence was 27 days.

CLASSIFICATION OF CASES.

Glands, - - -	25	General, - - -	1
Bone, - - -	9	Pulmonary, . . .	16
Spine, - - -	2	Meningeal, - - -	15
Abdomen, - - -	1	Renal, - - -	1
Skin, - - -	1	For X-Ray Examination,	1

GLANDULAR TUBERCULOSIS.—25. Males, 11; females, 14.

The average age was 14·9 years, and the average duration of residence, 30·4 days.

In 2 cases the glands were excised and in 23 abscesses opened. 1 case was incubating measles and infected 1 other.

OSSEOUS TUBERCULOSIS.—9. Males, 6; females, 3.

The average age was 30 years, and the average residence in hospital was 39·2 days. The bones affected were:—Os calcis and phalanges, 1; metatarsals, 1; os calcis, 1; metacarpals, 1; elbow, 1; tibia, 1; hip, 1; sternum, 2.

SPINAL TUBERCULOSIS.—2. Males, 2.

Both cases had Psoas abscesses and were transferred to a sanatorium after 16 and 23 days respectively.

ABDOMINAL TUBERCULOSIS.—1. A female, aged 12 years, was in hospital 5 days.

GENERAL TUBERCULOSIS.—1. A female, aged 11 years, had arthrotomy of knee performed.

SKIN TUBERCULOSIS.—1. A female, aged 9 years, had a long-standing tubercular lesion of the skin cured.

PULMONARY TUBERCULOSIS.—16. Sex.—Male, 5; female, 11. 3 of this group were fatal. The average age was 20·6 years, and the average stay in hospital was 9·3 days.

MENINGEAL TUBERCULOSIS.—15. 8 males and 7 females died from tubercular meningitis. The average age was 3·4 years, and the average residence, 6·2 days.

RENAL TUBERCULOSIS.—1. A male, aged 29 years, was in hospital 7 days, while an abscess was opened.

FOR X-RAY EXAMINATION.—1. A female, aged 9 years, was in hospital 8 days. She had her intestinal tract investigated by barium.

FATAL CASES.—18. Sex.—Male, 8; female, 10. The average age was 9·1 years, and the average residence 9·3 days.

Type of Disease.—Pulmonary, 3; meningeal, 15.

CORRECTED DIAGNOSIS.—Acute abscess, 3; bronchiectasis, 1; bronchitis, 1; cerebro-spinal fever, 1; mastoiditis, 1; negative, 1; osteomyelitis, 1.

OTHERS WHICH PROVED ON OBSERVATION TO BE TUBERCULOSIS.—Cerebro-spinal fever, 1; diphtheria, 1; encephalitis lethargica, 1; observation, 4; pleural effusion, 1; pneumonia, 6; puerperal fever, 1; syphilis, 1.

PNEUMONIA.

28 cases were in hospital at the beginning of the year; 290 were admitted; 103 were wrongly diagnosed, and 10 patients notified as suffering from other diseases proved to be cases of pneumonia. Of these 225 cases, 144 recovered, 52 died, and 29 were in hospital at the end of the year.

The following table shows the age-periods and the sex of the cases discharged :—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
- 5 years, -	24	14	21	13	45	27
- 10 " -	14	5	—	—	14	5
- 15 " -	8	4	—	—	8	4
- 20 " -	25	2	2	—	27	2
- 25 " -	10	2	2	—	12	2
- 30 " -	7	—	1	—	8	—
- 35 " -	10	2	2	—	12	2
- 40 " -	6	2	—	—	6	2
Over 40 " -	6	3	9	2	15	5
	110	34	37	15	147	49

CLASSIFICATION OF DISEASE.—Acute lobar pneumonia, 122; broncho-pneumonia, 62; influenzal pneumonia, 3; hypostatic pneumonia, 5; central pneumonia, 1; abortive pneumonia, 1; unresolved pneumonia, 2.

TYPE OF DISEASE.—Mild, 19; moderate, 81; severe, 96.

THE SITUATION OF THE LESION in the lobar cases was as follows :—Double, 4. Right side—Base, 53; apex, 9; whole, 4; middle, 1. Left side—Base, 44; apex, 4; whole, 3.

THE AVERAGE DAY OF DISEASE of all cases on admission was 5·7 days; of recovered cases, 5·2 days; and of fatal cases, 7 days.

THE AVERAGE DURATION OF RESIDENCE of all cases was 29 days; of recovered cases, 36·4 days; and of fatal cases, 8 days.

THE FATALITY RATE was 26·53 per cent. 16 were admitted moribund and died within a few hours of admission.

COMPLICATIONS.—22, or 11·2 per cent. of the discharges, had one or more complications. These were:—Cystitis, 1; dermatitis, 2; empyema, 11; jaundice, 1; otitis media, 3; pericarditis, 3; positive swab, 2; retention of urine, 2.

CORRECTED DIAGNOSIS.—Abscess, 1; anæmia, 1; bronchitis, 37; bronchiectasis, 1; cerebro-spinal fever, 1; chickenpox, 1; chronic bronchitis and emphysema, 1; cancer uterus, 1; carbuncle, 1; cardiac disease, 9; constipation, 3; eczema, 2; empyema, 4; enteric fever, 1; gonorrhœa, 1; measles, 4; meningismus, 1 meningitis, 1; miscarriage, 1; marasmus, 5; negative, 5; nephritis, 1; otitis media, 1; pleural effusion, 2; pulmonary fibrosis, 2; septicæmia, 1; sore throat, 1; tuberculosis, 6; tumour lung, 2; ulcerative stomatitis, 1; uræmia, 1; whooping-cough, 3.

CASES WHICH PROVED TO BE PNEUMONIA on observation were admitted to hospital as:—Edema larynx, 1; diphtheria, 4; encephalitis lethargica, 1; meningitis, 2; scarlet fever, 2.

Measles.

4 cases were in hospital at the beginning of the year, 70 were admitted, 5 were wrongly diagnosed, and 15 others proved to be cases of measles. Of these 84 patients, 78 recovered, 5 died, and 1 was in hospital at the end of the year.

SEX.—Male, 49; female, 34. 4 were adults.

THE AVERAGE DAY OF ILLNESS was 4·5 days, and the average duration of residence, 26·6 days.

TYPE.—Mild, 61; moderate, 14; severe, 8.

THE FATALITY RATE was 5·9 per cent.

COMPLICATIONS.—Bronchitis, 1; broncho-pneumonia, 6; blepharitis, 1; convulsions, 2; dermatitis, 1; otitis media, 5; rhinitis, 2.

OTHER CONDITIONS present on admission:—Chronic otitis media, 5; tuberculosis, 1.

CORRECTED DIAGNOSIS.—Negative, 4; rhinitis, 1.

CASES WHICH PROVED TO BE MEASLES on observation were admitted as:—Diphtheria, 7; pneumonia, 4; scarlet fever, 4.

CONCURRENT INFECTIONS.—Measles and whooping-cough, 2.

Whooping-Cough.

1 case was in hospital at the beginning of the year, 17 were admitted, 3 were wrongly diagnosed, and 9 others proved to be whooping-cough. Those 24 cases were discharged well.

AGES.—All were under 8 years of age.. The average age was 3·6 years.

SEX.—Male, 11; female, 13.

THE AVERAGE DAY OF DISEASE was 18 days, and the average residence, 47·1 days.

TYPE.—Mild, 8; moderate, 10; severe, 4; convalescent, 2.

COMPLICATIONS.—Broncho-pneumonia, 5; effusion, 1; otitis media, 2; positive swab, 1.

CORRECTED DIAGNOSIS.—Malnutrition, 2; negative, 1.

CONCURRENT INFECTION.—Whooping-cough and measles, 1.

OTHERS WHICH PROVED TO BE CASES OF WHOOPING-COUGH.—Diphtheria, 3; pneumonia, 3; scarlet fever, 3.

TREATMENT.—The early cases were treated with whooping-cough vaccine and the late ones with whooping-cough immunogen.

Meningitis.

CEREBRO-SPINAL FEVER.—Of 8 proved cases, 1 recovered and 7 died. The recovered case was an infant under 1 year. The child was admitted on the 6th day of illness and was resident in hospital 78 days.

THE FATAL CASES were 5 males and 2 females. 2 were under 1 year of age, 2 between 1 and 2 years, 2 between 2 and 3 years, and 1 between 3 and 4 years.

The average day of illness of the fatal cases was 11 days, and the average residence, 21 days.

MICROCOCCLUS CATARRHALIS MENINGITIS.—A male, aged 2 years, had been ill 8 days, and was discharged well in 34 days.

INFLUENZAL MENINGITIS.—A male, aged 1 year, died in 14 days from influenzal meningitis.

OTHERS notified meningitis but proved:—Constipation, 1; enteritis, 1; hæmorrhagic pachymeningitis, 1; negative, 6; serous meningitis, 1.

Tinea Tonsurans.

20 males and 7 females with long-standing ringworm of the scalp were treated with thallium acetate.

7 were under 5 years of age, 16 were between 5 and 10 years, and 4 were between 10 and 13 years of age.

The average residence was 5·4 days.

RESULTS OF TREATMENT.—An endeavour was made to follow up the cases treated by thallium acetate to determine (1) if the disease was eradicated, (2) the frequency of after-effects.

19 of the cases either returned for inspection or the doctor reported on the condition several months after the treatment was carried out.

In 18 cases a perfect growth of hair, free from the parasite, was present 3 to 4 months after. In 1 case crusts had appeared from neglect. This child was afterwards re-admitted to hospital and cured.

In 3 instances the patients suffered from joint pains. In 2 the pains were of a transient nature, but in another case the child was in bed 2 weeks with swelling of both legs below the middle of the thighs. In this case no temperature was present. These 3 cases were afterwards examined and found to be quite well.

Venereal Disease.

At the beginning of the year 6 cases were in residence. Throughout the year 158 cases were admitted for indoor treatment. Of these, 43 were wrongly diagnosed; and 1 patient, notified as pneumonia, proved to be a case of venereal disease. Of 122 cases, 114 were discharged in varying stages of improvement, 2 died, and 6 were in hospital at the end of the year.

SEX.—Male, 63; female, 53.

AGE.—Under 1 year, 10; 2 to 10 years, 2; 11 to 20 years, 21; 21 to 30 years, 39; 31 to 40 years, 28; 41 to 50 years, 9; over 50 years, 7.

The average age of the proved cases was 27 years, and the average duration of residence, 27 days.

The indoor cases were:—Syphilis, 44; gonorrhœa, 55; syphilis and gonorrhœa, 3; ophthalmia neonatorum, 10; soft sore, 1; balanitis, 1; phagedæna, 1; paraphimosis, 1.

CORRECTED DIAGNOSIS.—Anæmia, 1; cerebral softening, 1; mastitis, 1; negative, 11; simple ophthalmia, 28; tuberculosis, 1.

COMPLICATIONS AND REASONS FOR INDOOR TREATMENT.—Circumcision, 12; dilating stricture, 1; lumbar puncture, 10; opening sinus, 1; removing sequestra, 1; removal of warts, 1.

OPHTHALMIA NEONATORUM.—Of 38 cases of notified ophthalmia discharged, 28 were simple and 10 due to gonococci. Of the 10 true cases, 2 were mild, 3 moderate, and 5 severe. In 3 neglected cases, 2 were discharged blind in both eyes, and 1 had partial loss of vision.

One adult case resisted treatment for several weeks, but ultimately completely recovered.

The number and nature of the cases attending at the outdoor clinic and the areas from which they came are shown in the following table. 326 new cases were registered—231 males and 95 females.

VENEREAL DISEASES, 1928.

	Syphilis.	Gonorrhœa.	Syphilis and Gonorrhœa	Soft Sore.	Others V. D.	Others Non V. D.	Total.	Indoor Cases.	Indoor Days.	Outdoor Attendances
Middle Ward, -	88	108	7	—	13	64	280	94	1,972	2,196
Upper Ward, -	4	10	—	—	3	5	22	9	141	108
Lower Ward, -	2	1	—	—	—	—	3	2	46	17
Airdrie, - -	3	4	—	—	—	—	7	5	201	14
Coatbridge, - -	11	9	2	—	—	2	24	6	146	73
Hamilton, - -	16	22	1	—	8	8	55	16	307	436
Lanark, - -	7	7	—	—	—	—	14	6	216	67
Motherwell and Wishaw, -	41	52	5	—	6	17	121	16	422	1,352
Ayrshire, - -	2	—	—	—	—	—	2	—	—	4
Dunbartonshire, -	1	2	—	—	—	—	3	2	84	14
Peebles, - -	1	—	—	—	—	—	1	1	34	—
Total, - -	176	215	15	—	30	96	532	157	3,569	4,281

The following is a synopsis of the venereal diseases work since 1921 :—

	1921		1922		1923		1924		1925		1926		1927		1928	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>New Cases :—</i>	315	88	214	79	171	45	163	55	191	68	158	52	234	76	231	95
Syphilis, - -	107	31	49	36	48	15	34	19	35	24	20	8	24	16	41	16
Gonorrhœa, -	103	22	75	14	68	10	76	21	108	32	78	27	126	39	106	43
Syphilis and Gonorrhœa, -	9	7	4	1	4	5	1	1	—	2	—	2	2	3	4	4
Soft Sore, -	1	—	2	—	9	—	—	—	—	—	—	—	—	—	—	—
Others V.D., -	5	1	5	1	7	—	5	—	6	1	2	—	7	—	14	2
Others Non V.D.,	90	27	79	27	35	15	47	14	42	9	58	15	75	18	66	30
<i>Cases treated during Year :—</i>																
Syphilis, - -	252	102	176	91	162	63	123	56	88	43	88	32	71	44	124	52
Gonorrhœa, -	146	24	123	16	100	13	99	22	137	48	106	42	157	48	160	55
Syphilis and Gonorrhœa, -	35	11	24	6	24	10	12	5	6	4	4	3	4	3	11	4
Soft Sore, -	3	—	4	—	8	—	2	—	—	—	1	—	—	—	—	—
Others V.D., -	5	1	7	1	8	—	8	—	4	—	6	—	8	—	28	2
Others Non V.D.,	102	29	19	3	48	20	48	17	51	12	60	15	83	18	66	30
Outdoor Attend- ances, - -	6539	687	3536	706	3270	599	3174	411	5531	1167	3070	747	4518	837	3673	608
Indoor Cases, -	64	61	46	44	50	42	41	32	53	61	44	47	55	57	79	78
Indoor Days, -	1820	1485	1030	1767	1475	1264	1044	1110	1702	1846	1268	1399	1404	2380	1783	1786
Salvarsan Sub- stitute Injec- tions, - -	1701	645	1092	664	1358	460	594	240	910	407	812	401	926	650	1024	379
No. of Operations	19	—	10	1	14	1	10	—	8	1	6	—	12	2	15	1
„ Wassermann,	869	267	570	224	424	131	269	91	172	64	165	69	198	127	294	81
„ Smears Spiro- chætes,	35	1	18	—	19	—	7	—	6	—	1	—	3	—	4	—
„ „ Gonococci,	181	44	163	36	171	35	138	53	126	71	51	39	144	86	115	77

Note.—Included under Salvarsan Substitute Injections are 652 Bismuth Injections.

Miscellaneous Cases Discharged during 1928.

		Rec.	Died.			Rec.	Died.
Abdominal pain, ...	...	1	—	Joint pains, ...	...	1	—
Accident, ...	...	1	—	Malaria, ...	...	1	—
Adenitis, ...	...	1	—	Malnutrition, ...	...	2	—
Anæmia, ...	...	1	—	Mastitis, ...	...	1	—
Appendicitis, ...	...	1	—	Naso-pharyngitis, ...	...	—	2
Arterio-sclerosis, ...	...	—	1	Negative, ...	...	12	—
Bronchitis, ...	...	1	—	Nephritis, ...	...	1	—
Burn, ...	...	1	—	Otitis media, ...	...	1	—
Chickenpox, ...	...	1	—	Pleural effusion, ...	...	1	—
Cold, ...	...	2	—	Poliomyelitis, ...	...	2	—
Constipation, ...	...	1	—	Prolapse rectum, ...	...	1	—
Dermatitis, ...	...	2	—	Purpura hæmorrhagica, ...	...	—	1
Duodenal ulcer, ...	...	1	—	Pyelitis, ...	...	1	—
Eczema, ...	...	1	—	Rheumatism (acute), ...	...	2	1
Empyema, ...	...	5	1	Rhinitis, ...	...	1	—
Encephalitis lethargica, ...	...	1	1	Scabies, ...	...	26	—
Endocarditis, ...	...	1	1	Sepsis (various), ...	...	8	—
Enteritis, ...	...	4	—	Septicæmia, ...	...	—	1
Erythema multiforme, ...	...	1	—	Sore throat, ...	...	21	—
Fracture, ...	...	2	—	Sprain, ...	...	1	—
Hysteria, ...	...	2	—	Stomatitis, ...	...	1	—
Hæmorrhoids, ...	...	1	—	Tonsillitis, ...	...	4	—
Hernia, ...	...	1	—	Trachoma, ...	...	1	—
Impetigo, ...	...	4	—	Vaccinia, ...	...	1	—
Influenza, ...	...	2	—	Vincent's angina, ...	...	2	—

Electrical Department.

During the year 719 cases were photographed. These were:—Chest, 575; spine, 33; pelvis, 14; abdomen, 2; joints, 43; bones, 38; fractures, 5; skull, 3; kidney, 1; œsophagus, 1; foreign body, 1; barium meals, 3.

The sources from which the 719 cases came were:—County Hospital, Motherwell, 163; Bellshill Dispensary, 105; Cambuslang Dispensary, 91; Blantyre Dispensary, 60; Shotts Dispensary, 67; Larkhall Dispensary, 5; Bellshill Hospital, 5; Lightburn Hospital, 20; Calderbank Hospital, 2; Longriggend Sanatorium, 80; Shotts Sanatorium, 57; Lower Ward, 16; Middle Ward (others), 22; Upper Ward, 12; Doctors, 10; V.D. Centres, 4.

OPERATIONS.

During the year the following operations were performed in the hospital :—

DISEASE.		OPERATION.	RECOVERED.	DIED.	TOTAL.
Tuberculosis	Glands	Excision or scraping	25	—	25
	Bone	Scraping sinuses, &c.	7	—	7
	Knee	Arthrotomy	1	—	1
	Skin	Scraping	1	—	1
	Psoas Abscess	Opening	1	—	1
	Abscess	Opening	1	1	2
Diphtheria	Laryngeal	Tracheotomy	5	—	5
	stenosis	Intubation	1	2	3
	Carrier	Tonsillectomy	24	—	24
Scarlet Fever	Glands	Opening abscess	2	—	2
	Large tonsils	Tonsillectomy	4	—	4
	Phimosis	Circumcision	1	—	1
	Mastoiditis	Mastoidectomy	3	1	4
Enteric Fever	Perforation	Laparotomy	1	1	2
Erysipelas	Abscess	Opening	1	—	1
	Cellulitis	Incision	3	—	3
Puerperal Fever	Empyema	Resection of rib	1	1	2
	Mastitis	Opening	2	—	2
	Abscess	Opening	1	—	1
Venereal Diseases	Phimosis	Circumcision	12	—	12
	Bone	Removal of sequestra	1	—	1
	Sinus	Scraping	1	—	1
	Warts	Excision	1	—	1
	Abscesses	Opening	1	—	1
Pneumonia	Empyema	Resection of rib	8	3	11
Others	Abscesses	Opening	12	—	12
	Carbuncle	Opening	1	—	1
	Appendicitis	Laparotomy	1	—	1
	Duodenal ulcer	Gastro-enterostomy	1	—	1
	Hæmorrhoids	Excision	1	—	1
	Hernia	Herniotomy	1	—	1
	Cerebral abscess	Opening	—	1	1
	Osteomyelitis	Incision	1	—	1
	Empyema	Resection of rib	9	4	13
	Otitis media	Mastoidectomy	2	—	2
	Prolapse rectum	Alcohol injection	1	—	1
			139	14	153

The following operations and consultations were undertaken by the consulting staff :—

Dr. MacLennan, Surgeon—Laparotomy, 3; excision of glands, 3; abscess leg, 1; Psoas abscess, 1; herniotomy, 1; gastro-enterostomy, 1; cerebral abscess, 1; hæmorrhoids, 1; osteomyelitis, 1.

Dr. Adams, Otologist—Tonsillectomy, 14; mastoidectomy, 4.

Dr. Cameron, Gynæcologist—Consultation, 2.

Dr. Mortimer, Ophthalmologist—Consultation, 1.

Dr. Harrington, Physician—Consultation, 1.

The Staff.

On 31st December, 1928, the indoor staff comprised 1 physician-superintendent, 2 assistant medical officers, 1 matron, 11 sisters, 62 probationers, and 37 maids.

The outdoor staff consisted of 1 engineer, 3 firemen, 1 gardener, 5 assistant gardeners, 2 chauffeurs, 1 V.D. attendant, 1 X-ray attendant, and 2 clerks.

The total staff numbered 130.

LECTURES.—From October till April lectures and demonstrations on elementary anatomy and physiology, hygiene, fevers, the theory and practice of nursing, and medical and surgical nursing, in accordance with the syllabus of the General Nursing Council, were given by the medical staff and matron. The course in cooking and dietetics was given by the Education Authority.

16 probationers passed the Final Examination and were granted the General Nursing Council Certificate for Fever Nursing, whilst 7 others completed the Preliminary Examination under this scheme. 20 probationers were awarded cookery certificates by the Education Authority.

STAFF ILLNESSES.—25 probationers and 18 maids were warded for the following illnesses :—Abdominal pain, 1; abscess, 1; anæmia, 1; appendicitis, 1; burn (nitric acid), 1; cold, 2; dermatitis, 1; hysteria, 2; joint pains, 1; negative, 2; otitis media, 1; scarlet fever, 3; septic finger, 2; sore throat, 16; sprain, 2; tonsillitis, 4; tuberculosis, 1 (2 admissions).

The sick staff lost 1,058 working days.

INOCULATIONS.—19 probationers were vaccinated with T.A.B. vaccine against the enteric group of diseases.

IMMUNISATION.—86 of the staff had the Schick Test. Of 33 positives, 32 were immunised.

Of 78 Dick Tests, 14 reacted and 13 of these were immunised.

Ambulance Work.

	Admissions.	Discharges.	Tuberculosis.	Disinfections.	Others.	Total.
Patients, -	1,888	786	513	—	9	3,196
Journeys, -	1,617	253	176	19	44	2,109
Mileages, -	23,613	6,650	6,571	289	812	37,935

Statistics.

TABLE I.—ADMISSIONS (AS NOTIFIED) AND DISCHARGES DURING 1928,
WITH THE NUMBERS IN HOSPITAL AT THE BEGINNING AND END OF
THE YEAR.

Disease.	In Hospital, 1st January, 1928.		Admitted.		Discharged.				Remaining in Hospital 31st Dec., 1928.	
	M.	F.	M.	F.	Recovered.		Died.		M.	F.
					M	F.	M	F.		
Scarlet Fever, - -	18	36	337	446	308	429	4	5	43	48
Diphtheria, - - -	32	26	241	330	242	320	15	10	16	26
Enteric Fever, - -	—	1	8	12	7	12	1	1	—	—
Erysipelas, - - -	1	1	17	33	14	29	3	1	1	4
Puerperal Fever, - -	—	9	—	108	—	79	—	30	—	8
Tuberculosis, - - -	—	1	30	34	28	29	2	6	—	—
Measles, - - -	2	2	41	29	40	29	3	1	—	1
Whooping Cough, -	—	1	9	8	8	9	1	—	—	—
Venereal Disease, - -	3	3	80	78	78	78	1	1	4	2
Pneumonia, - - -	19	9	208	82	157	63	49	20	21	8
Others, - - -	4	10	90	100	77	98	16	8	1	4
	79	99	1,061	1,260	959	1,175	95	83	86	101
	178		2,321		2,134		178		187	
	2,499				2,499					

TABLE II.—ADMISSIONS AND DISCHARGES IN EACH MONTH
OF THE YEAR 1928.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Admitted, - -	202	226	192	156	188	208	120	180	199	248	217	185	2,321
Discharged—													
Recovered, - -	137	193	217	171	139	161	184	136	159	202	224	211	2,134
Died, - -	22	13	14	16	23	13	8	12	11	11	17	18	178

TABLE III.—AGE AND SEX OF PATIENTS DISCHARGED DURING THE
YEAR 1928, WITH THE FATALITY RATE.

SCARLET FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	—	—	—	—	1	100·0	—	1	100·0
-2,	6	1	14·2	—	1	100·0	6	2	25·0
-3,	19	—	—	15	—	—	34	—	—
-4,	22	—	—	31	—	—	53	—	—
-5,	31	1	3·1	39	—	—	70	1	1·4
-6,	38	—	—	38	1	2·5	76	1	1·2
-7,	27	—	—	38	—	—	65	—	—
-8,	27	—	—	36	—	—	63	—	—
-9,	20	—	—	33	—	—	53	—	—
-10,	14	—	—	18	—	—	32	—	—
-15,	48	—	—	82	—	—	130	—	—
-20,	11	—	—	26	—	—	37	—	—
Over 20,	9	—	—	33	—	—	42	—	—
Total, - -	272	2	0·7	389	3	0·7	661	5	0·75

TABLE III. (*contd.*)—DIPHtheria.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	—	—	—	—	—	—	—	—	—
-2,	3	2	40·0	6	—	—	9	2	18·2
-3,	12	—	—	9	1	10·0	21	1	4·5
-4,	16	2	11·1	9	—	—	25	2	7·4
-5,	15	2	11·7	18	2	10·0	33	4	10·8
-6,	16	2	11·1	24	1	4·0	40	3	6·9
-7,	18	2	10·0	21	1	4·5	39	3	7·1
-8,	11	—	—	18	2	10·0	29	2	6·4
-9,	17	—	—	20	—	—	37	—	—
-10,	9	—	—	17	—	—	26	—	—
-20,	26	3	10·3	40	—	—	66	3	4·3
Over 20,	10	—	—	18	—	—	28	—	—
Total,	153	13	7·8	200	7	3·3	353	20	5·3

TABLE III. (*contd.*) ENTERIC FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-5,	2	—	—	—	—	—	2	—	—
-10,	1	—	—	2	—	—	3	—	—
-15,	—	—	—	1	—	—	1	—	—
-20,	2	—	—	—	—	—	2	—	—
-25,	—	—	—	1	—	—	1	—	—
-30,	—	1	100	2	—	—	2	1	33·3
-35,	—	—	—	1	—	—	1	—	—
-40,	—	—	—	—	—	—	—	—	—
-45,	—	—	—	—	—	—	—	—	—
-50,	—	—	—	—	—	—	—	—	—
Over 50,	—	—	—	—	1	100	—	1	100
Total,	5	1	16·6	7	1	12·5	12	2	14·2

TABLE IV.—THE STAGE OF THE DISEASE IN WHICH PATIENTS DISCHARGED IN 1928, WERE ADMITTED TO HOSPITAL.

Disease.	Days of 1st Week.							Week of Illness.				Total.
	1	2	3	4	5	6	7	1st.	2nd.	3rd.	4th	
Scarlet Fever, - -	27	193	197	129	46	26	12	630	26	10	—	666
Diphtheria, - - -	30	98	95	70	32	20	8	353	17	1	2	373
Enteric Fever, - -	—	—	—	—	1	—	—	1	10	3	—	14

TABLE V.—COMPLICATIONS OBSERVED IN PATIENTS DISCHARGED DURING 1928.

Scarlet Fever.	Suppurative Cervical Adenitis.	Non-Suppurative Cervical Adenitis.	Otitis Media Purulenta.	Rhinorrhoea.	Cardiac Complications.	Nephritis.	Arthritis.	Mastoiditis.	Pulmonary Complications.	Skin Conditions.
In 661 Recovered Cases,	4	87	54	51	12	11	16	3	3	1
In 5 Fatal Cases, -	—	1	1	—	—	1	—	1	3	—
In 666 Cases, - - -	4	88	55	51	12	12	16	4	6	1
Percentage, - - -	0·6	13·2	8·2	7·6	1·8	1·8	2·4	0·6	0·9	0·1

Diphtheria.	Adenitis.	Rhinitis.	Otitis Media.	Cardiac Involvements.	Pneumonia.	Paralysis, all Forms.	Arrhythmia.	Nephritis.	Albuminuria.	Serum Rashes.
In 353 Recovered Cases, -	5	3	5	—	—	—	18	1	6	33
In 20 Fatal Cases, - -	—	—	—	—	1	14	—	1	1	1
In 373 Cases, - - -	5	3	5	—	1	14	18	2	7	34
Percentage, - - -	1·3	0·8	1·3	—	0·2	3·7	4·8	0·5	1·8	9·1

TABLE V. (*contd.*)—COMPLICATIONS OBSERVED, &c.

Enteric Fever.	Perforation.	Otitis Media.	Pneumonia.	Adenitis.	Other Complications.
In 12 Recovered Cases, - - -	—	1	1	1	1
In 2 Fatal Cases, - - - -	1	—	1	—	—
In 14 Cases, - - - - -	1	1	2	1	1
Percentage, - - - - -	7·1	7·1	14·2	7·1	7·1

TABLE VI.—ADMISSIONS (AS NOTIFIED) SINCE OPENING OF HOSPITAL.

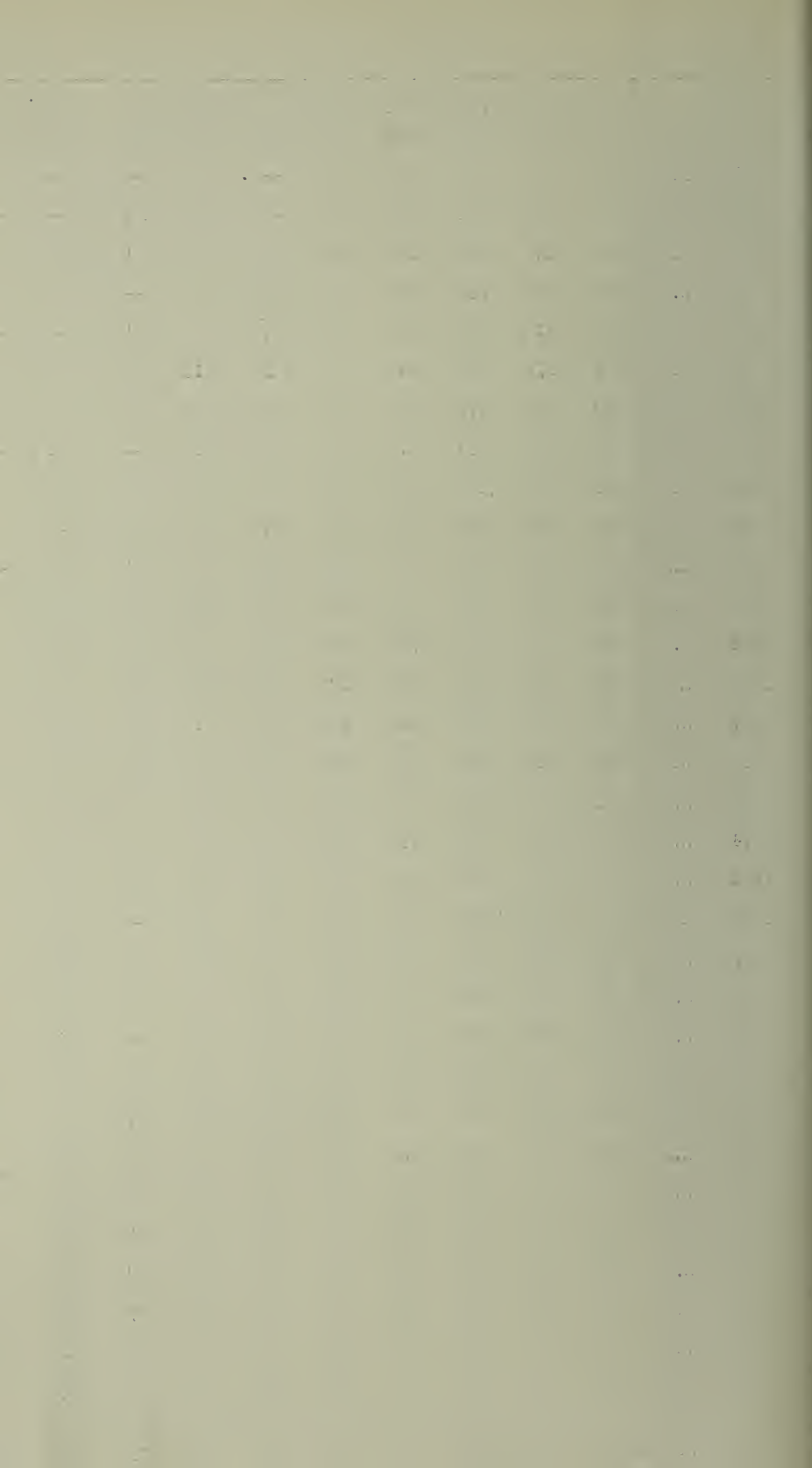
Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis.	Cerebro-Spinal Fever.	Veneral Diseases.	Tinea.	Pneumonia.	Other Diseases	Total.
1897	19	70	—	1	—	9	—	—	—	—	—	—	5	104
1898	211	349	12	2	2	13	—	—	—	—	—	—	22	611
1899	235	571	21	5	—	1	—	—	—	—	—	—	16	849
1900	145	638	21	6	2	6	—	—	—	—	—	—	14	832
1901	291	621	31	7	—	—	—	—	—	—	—	—	14	964
1902	160	431	16	12	—	6	—	—	—	—	—	—	86	711
1903	174	187	22	14	1	2	—	—	—	—	—	—	17	417
1904	112	155	53	13	1	3	—	—	—	—	—	—	329	666
1905	300	114	66	12	4	1	23	—	—	—	—	—	93	613
1906	214	283	72	8	2	6	76	—	8	—	—	—	16	685
1907	99	317	283	4	9	2	106	—	94	—	—	—	16	930
1908	131	508	206	14	6	9	53	—	61	—	—	—	23	1,011
1909	109	834	164	11	10	3	1	—	10	—	—	—	9	1,151
1910	148	696	267	16	12	1	27	—	5	—	—	—	15	1,187
Forward	2348	5774	1234	125	49	62	286	—	178	—	—	—	675	10731

TABLE VI. (*contd.*)—ADMISSIONS.

Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Cerebro-Spinal Fever.	Veneral Diseases.	Times.	Pneumonia.	Other Diseases.	Total.
Forward	2348	5774	1234	125	49	62	286	—	178	—	—	—	675	10731
1911	122	670	248	16	12	4	—	—	7	—	67	—	47	1,193
1912	106	888	193	11	9	5	5	13	2	—	73	—	47	1,352
1913	126	838	246	12	6	2	16	37	7	2	61	—	15	1,368
1914	108	958	361	20	11	4	11	44	7	5	27	—	13	1,569
1915	115	750	286	25	12	4	18	65	29	4	26	—	30	1,364
1916	95	1,030	251	12	16	1	16	45	17	2	—	—	14	1,499
1917	92	642	191	17	13	22	3	120	26	99	4	—	26	1,255
1918	105	313	241	13	7	29	7	93	14	236	13	—	204	1,275
1919	118	595	280	16	28	24	11	87	24	111	6	—	155	1,455
1920	59	1,128	313	33	39	10	—	107	29	124	5	55	48	1,950
1921	107	1,047	250	38	54	1	—	156	12	123	19	51	50	1,908
1922	49	1,093	234	39	56	12	—	133	12	87	11	124	60	1,910
1923	61	931	254	47	56	7	11	122	9	91	5	87	67	1,748
1924	35	878	295	36	45	38	24	138	8	80	10	133	110	1,830
1925	25	922	285	44	44	5	24	84	2	106	11	123	96	1,771
1926	14	791	406	53	65	33	18	75	4	80	8	197	135	1,874
1927	9	452	419	47	88	11	7	62	5	105	16	259	193	1,673
1928	20	783	571	50	108	70	16	48	17	158	27	290	163	2,321
	3714	20483	6558	654	718	344	468	1429	409	1413	389	1319	2148	40046

TABLE VII.—DISCHARGES SINCE OPENING OF HOSPITAL.

TABLE VII.—DISCHARGES SINCE OPENING OF																													
Years.	Enteric Fever.		Scarlet Fever.		Diphtheria		Erysipelas.		Puerperal Fever.		Measles.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Cerebro Spinal Fever		Venereal Diseases.	Pneumonia.	Tinea.		Other Diseases.		TOTAL.				
	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.			Recd.	Died.	Recd.	Died.	Recd.	Died.			
1897	...	11	1	43	2	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	2	1	58	5			
1898	...	155	23	296	12	11	—	1	1	—	—	16	4	—	—	—	—	—	—	—	—	—	19	—	498	40			
1899	...	201	24	536	20	15	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	55	1	810	50			
1900	...	201	24	536	20	15	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	31	3	785	35			
1901	...	134	14	592	15	16	2	5	—	—	1	7	—	—	—	—	—	—	—	—	—	—	30	—	908	51			
1902	...	209	21	640	22	20	7	8	1	—	—	1	—	—	—	—	—	—	—	—	—	—	84	—	735	50			
1903	...	183	27	438	20	14	2	10	1	—	—	6	—	—	—	—	—	—	—	—	—	—	12	—	362	33			
1904	...	140	24	179	4	15	3	13	2	1	—	2	—	—	—	—	—	—	—	—	—	—	347	5	664	35			
1905	...	88	13	171	7	44	9	12	—	1	—	1	1	—	—	—	—	—	—	—	—	—	108	3	540	45			
1906	...	241	22	109	5	42	8	12	1	3	1	4	4	21	1	—	—	—	—	—	—	—	65	2	615	57			
1907	...	192	19	241	4	44	11	4	2	—	1	6	—	62	13	—	—	1	5	—	—	—	91	6	806	119			
1908	...	91	9	313	9	192	16	9	1	3	—	2	1	77	19	—	—	28	58	—	—	—	56	6	858	91			
1909	...	107	13	425	8	170	17	12	3	3	2	9	2	55	10	—	—	21	30	—	—	—	56	5	1,089	55			
1910	...	99	3	781	24	129	16	10	1	8	2	3	—	1	—	—	—	2	4	—	—	—	52	10	1,127	62			
1911	...	117	5	678	16	226	22	13	1	5	8	7	—	28	—	—	—	1	—	—	—	—	61	—	1,141	62			
1912	...	78	11	617	18	232	18	18	—	5	5	3	—	1	1	10	—	1	2	—	—	—	76	—	226	5	1,270	60	
1913	...	58	10	748	22	136	15	11	—	3	5	6	—	2	2	4	—	—	1	—	—	—	61	—	228	8	1,316	55	
1914	...	87	5	724	15	150	13	10	1	2	4	1	1	11	3	41	5	1	—	—	—	—	76	—	226	5	1,270	60	
1915	...	75	10	833	27	228	38	15	4	9	2	2	1	5	4	37	4	1	1	—	—	—	27	—	205	11	1,437	102	
1916	...	82	10	641	20	214	29	18	6	9	1	5	3	15	5	47	4	11	9	—	—	—	36	—	148	10	1,226	97	
1917	...	82	10	1,017	23	214	27	13	—	8	7	1	—	6	5	63	2	3	5	—	—	—	—	—	84	5	1,491	84	
1918	...	77	14	563	19	185	25	14	1	7	3	20	1	2	1	109	2	6	13	98	—	—	—	4	—	111	11	1,196	90
1919	...	42	15	269	11	135	18	11	4	3	3	29	7	7	2	83	10	1	4	231	—	—	—	13	—	334	35	1,158	109
1920	...	82	11	450	12	180	14	13	—	15	10	27	4	7	4	94	3	6	10	104	1	—	—	6	—	301	38	1,285	107
1921	...	39	3	985	10	191	19	24	4	25	11	16	3	—	—	103	7	1	13	124	—	33	17	5	—	226	18	1,772	105
1922	...	76	14	997	19	167	22	31	7	41	13	2	—	—	—	136	9	1	4	122	3	40	8	19	—	221	10	1,853	109
1923	...	29	3	979	18	147	31	31	5	43	14	22	6	—	—	132	10	—	4	66	4	79	25	11	—	249	12	1,788	132
1924	...	42	3	879	19	186	18	38	4	34	17	5	1	10	1	103	16	1	1	77	3	45	18	9	—	203	10	1,632	111
1925	...	21	1	818	16	189	18	27	1	35	13	39	11	20	1	111	22	—	10	54	7	65	25	10	—	295	23	1,684	148
1926	...	14	3	800	16	179	11	39	4	31	14	6	1	20	4	90	7	—	2	93	1	70	19	11	—	297	30	1,650	112
1927	...	13	2	707	7	237	13	41	7	33	20	39	2	10	3	60	10	1	3	61	2	114	31	8	—	377	35	1,701	135
1928	...	1	1	465	3	280	7	41	4	56	24	6	1	6	1	47	13	—	6	76	3	135	41	16	—	470	38	1,599	142
1928	...	12	2	661	5	353	20	40	4	73	31	78	5	13	3	41	15	1	7	114	2	144	52	27	—	577	32	2,134	178
Total	...	2,878	346	18,595	448	4,541	473	548	71	456	212	372	60	379	83	1,311	139	88	192	1,220	26	725	236	400	—	5,675	380	37,188	2,666
Fatality per cent.		10.7		2.3		9.4		11.4		31.7		13.8		17.9		9.5		68.5		2.0	24.5		—		6.2		6.6		



COUNTY OF LANARK

DISTRICT OF THE LOWER WARD

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1928

Medical Officer of Health	=	=	County Offices, Hamilton
Assistant Medical Officer of Health		}	County Buildings
Sanitary Inspector	=	=	= } 149 Ingram Street, Glasgow

STAFF

Medical Officer of Health

J. HUME PATTERSON, F.R.F.P.S.(Glas.), D.P.H.

Assistant M.O.H. and Tuberculosis Officer

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

Sanitary Inspector

JOHN B. PHILIP

Assistant Sanitary Inspector

THOMAS B. POLLOCK
(Certificated Meat Inspector)

Building, Housing, and Town Planning Inspector

CECIL BERGMAN.

Nurse Health Visitors—3

COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

(Area, 21,101 Acres.)

Report by the Medical Officer of Health
For the Year 1928.**Vital Statistics.**

The **Population** at the middle of the year 1928 has been estimated at 33,300. The population of the various Parishes is given in Table B.

The number of *inhabited* houses, according to the Valuation Roll, amounts to 6,868, while there were 71 *not inhabited*.

Statistical Tables.—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods 1891-1900, 1901-10, and 1911-20, as well as those for each year since 1921.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the death classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the district, after correction for transfers, amounted to **623**—males, 327; females, 296—giving a birth-rate of **18·7** per thousand of the population, compared with 18·9 in the year 1927.

The number of *illegitimate births* registered in the District, after correction for transfers, amounted to 24—males, 7; females, 17—giving an illegitimate rate of 3·8 per hundred total births, compared with 5·5 in the year 1927.

The **Deaths** registered in the District, after correction for transfers, amounted to **372**, giving a death-rate of **11·1** per thousand of the population, compared with 10·3 in the previous year.

Deaths in Relation to Age.—The deaths are here arranged in recognised age periods, and the percentage proportion of deaths at each age period is given :—

Infant Period.	-	Under 1 year,	59 deaths or 15·9 per cent.
Under School Age,	1-5 years,	30	„ 8·1 „
School Age, -	5-15 „	9	„ 2·4 „
Adolescent, -	15-25 „	18	„ 4·8 „
Early Mature Period,	25-45 „	41	„ 11·02 „
Late do.	45-65 „	80	„ 21·5 „
Post do.	65 years and upwards, -	135	„ 36·3 „

Deaths due to Notifiable Infectious Disease.—The deaths due to notifiable diseases numbered 79, made up as follows :—Tuberculosis, 32 (pulmonary, 24; meningeal, 4; abdominal, 3; and other forms, 1); pneumonia (all forms), 37; diphtheria, 4; encephalitis lethargica, 2; puerperal sepsis, 2; cerebro-spinal fever, 1; malaria, 1.

The deaths due to non-notifiable diseases amounted to 17—whooping-cough, 6; measles, 6; diarrhœa, 4; mumps, 1.

Respiratory Diseases.—The deaths during the year numbered 81, which includes those from pulmonary tuberculosis, and the following statistics show the deaths and death-rates per thousand of the population of the various forms for the past two years, and for the three quinquennial periods, 1911-15, 1916-20, and 1921-25 :—

Year.	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respiratory Diseases.	
	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.
Average.										
1911-15,	45	1·1	32	0·78	3	0·06	28	0·68	4	0·09
Average.										
1916-20,	41	1·38	23	0·76	5	0·16	22	0·73	6	0·18
Average.										
1921-25,	25	0·74	13	0·4	14	0·4	18	0·58	2	0·05
1926, -	21	0·67	13	0·4	20	0·6	21	0·67	5	0·15
1927, -	20	0·66	17	0·56	8	0·26	16	0·53	1	0·03
1928,	37	1·1	9	0·27	8	0·24	24	0·72	3	0·09

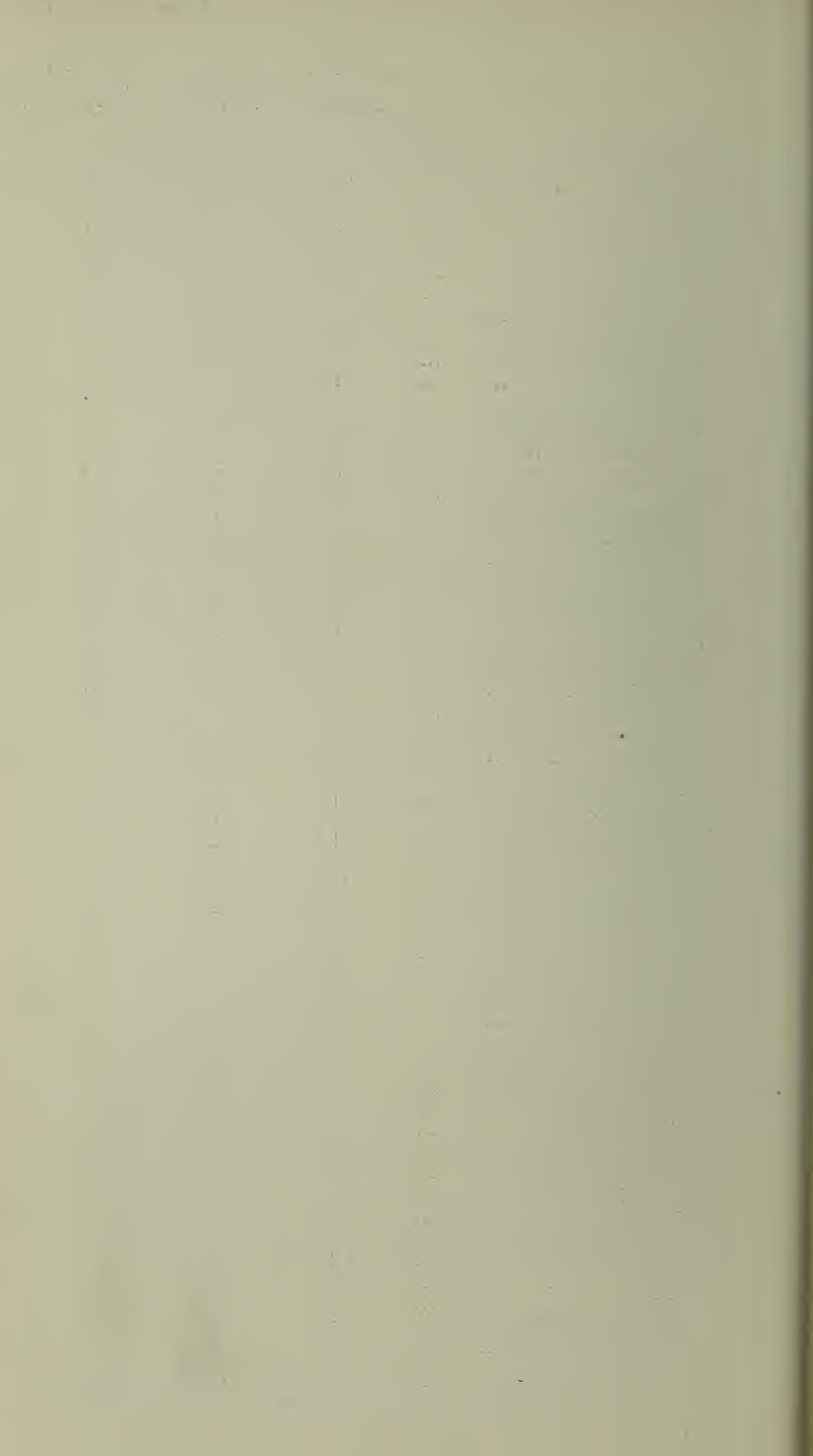
TABLE B.—LOWER WARD.—Year 1928.—Population, Births, and Deaths (a) in each Registration District, with Deaths classified according to cause.

[illegible]

TABLE C.—LOWER WARD.—Year 1928.—Deaths classified according to cause and age periods.

480B

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Net Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																			
					WEEKS.					MONTHS.					YEARS.									
					1	1-2	2-3	3-4	Total -4	1-3	3-6	6-9	9-12	Total -12	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	76 & over
Typhoid Fever, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles, ...	10	—	4	6	—	—	—	—	—	—	—	—	1	1	5	—	—	—	—	—	—	—	—	—
Scarlet Fever, ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-Cough, ...	7	—	1	6	—	—	—	—	—	—	1	2	—	3	3	—	—	—	—	—	—	—	—	—
Diphtheria, ...	8	—	4	4	—	—	—	—	—	—	—	—	1	1	2	—	1	—	—	—	—	—	—	—
Influenza, ...	8	—	—	8	—	—	—	—	—	—	—	1	—	1	1	—	—	—	1	1	—	—	4	—
Cerebro-Spinal Fever, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Erysipelas, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica, ...	3	1	2	2	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Parotitis, ...	1	—	—	1	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Malaria, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Dysentery, ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis, ...	29	3	8	24	—	—	—	—	—	—	—	—	—	—	1	—	—	7	10	1	5	—	—	—
Meningeal „	3	1	—	4	—	—	—	—	—	—	1	1	—	2	1	—	—	1	—	—	—	—	—	—
Abdominal „	2	2	1	3	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—
Other „	2	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Septicæmia and Pyæmia, ...	1	1	—	2	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—
Rheumatic Fever, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malignant Diseases, ...	26	8	2	32	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	5	6	14	3
Meningitis (Simple), ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral Hemorrhage, ...	36	2	6	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	6	10	14
Other Nervous Diseases, ...	27	6	22	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	6	3	3
Organic Heart Diseases, ...	35	4	4	35	—	—	—	—	—	1	—	—	—	1	1	—	—	1	2	4	6	14	6	6
Other Circulatory Diseases, ...	7	3	1	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	1	1	5
Bronchitis, ...	9	1	1	9	—	—	—	—	—	1	—	—	1	2	—	—	—	—	—	1	—	1	1	3
Pneumonia (All Forms), ...	53	8	24	37	—	—	—	—	—	—	4	1	2	7	7	1	1	1	1	2	6	6	3	2
Other Respiratory Diseases, ...	3	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—
Diabetes, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Pernicious Anæmia, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Diseases of Ductless Glands, ...	1	—	—	1	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Appendicitis, Typhlitis, ...	—	1	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Liver Diseases (not malignant), ...	1	2	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—
Other Digestive Diseases, ...	4	9	—	13	—	—	—	—	—	—	1	—	1	2	2	1	—	—	2	2	1	1	1	1
Nephritis, Bright's Disease, ...	11	1	—	12	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	4	1	2
Dis. of Genito-Urinary System, ...	1	2	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—
Dis. of Female Genital Organs, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Sepsis, ...	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Dis. and Acc. of Pregnancy, &c., ...	1	2	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—
Congenital Hydrocephalus, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Heart, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Congenital Malformations, ...	1	—	—	1	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Infantile Convulsions, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Diarrhœa (under 2 years), ...	2	2	—	4	—	—	1	—	1	—	—	—	1	3	1	—	—	—	—	—	—	—	—	—
Premature Birth, ...	8	6	—	14	12	1	—	—	13	1	—	—	—	14	—	—	—	—	—	—	—	—	—	—
Injury at Birth, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Atrophy (D. & M.), ...	13	1	—	14	8	—	—	—	8	2	4	—	—	14	—	—	—	—	—	—	—	—	—	—
Atelectasis, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suffocation—Overlying, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of early Infancy, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis, ...	1	—	—	1	—	—	1	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Violence, ...	15	9	9	15	—	—	—	—	—	—	—	—	—	—	2	2	—	5	—	1	2	3	—	—
Suicide, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Defined Diseases, ...	42	11	10	43	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	4	2	9	27
Ill-Defined Diseases, ...	6	2	2	6	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	2	1	1
TOTAL ...	388	39	105	372	23	1	2	—	26	8	13	5	7	59	30	6	3	18	23	18	35	45	68	67



Influenza.—In accordance with the method of classification adopted by the Registrar-General since 1st January, 1921, 8 deaths were ascribed to influenza. The diseases complicating these deaths were as follows:—Pneumonia, 4; cardiac failure, 2; acute myocarditis, 1; pleurisy, 1.

Malignant Diseases.—Deaths falling under this heading numbered 32—males, 16; females, 16. The type of disease was:—carcinoma, 28; and other forms, 4. The disease affected some portion of the gastro-intestinal tract in 22 cases; the genito-urinary tract, 2 cases; others, 8.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1000 OF THE POPULATION.
INFANTILE DEATHS PER 1000 BIRTHS.

Year. Average.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants Deaths.	Under 1 year Death-rate.
1891 to 1900	1,200	32·9	577	15·9	150	125·2
Average. 1901 to 1910	1,576	33·4	683	14·4	174	110·8
Average. 1911 to 1920	869	24·1	428	12·2	88	98·2
1921	672	22·4	294	9·8	60	89·3
1922	643	21·2	345	11·4	48	74·6
1923	664	21·08	320	10·1	48	72·3
1924	625	19·17	331	10·1	48	76·8
1925	649	19·6	339	10·2	52	80·1
1926*	591	19·06	353	11·3	39	65·9
1927	567	18·9	308	10·3	46	81·1
1928	623	18·7	372	11·1	59	94·7

*By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,477 acres with a population of 4,350 took place which affected the statistics for the year 1926.

PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (a) under the Notification Act; (b) by adoption under the Notification Act; and (c) by order of

the Scottish Board of Health ; and Group II, not compulsorily notifiable diseases. The diseases included in these groups are as follows :—

GROUP I.

(a)	(b)	(c)
Smallpox.	August, 1906.	1st August, 1912.
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	24th October, 1912.	1st July, 1914.
Typhus Fever.	Acute Poliomyelitis.	All forms of Tuberculosis.
Enteric Fever.	Tetanus.	1st November, 1918.
Puerperal Fever.	Anthrax.	Ophthalmia Neonatorum.
Erysipelas.	Glanders.	1st August, 1919.
	Actinomycosis.	Malaria.
		Dysentery.
		Trench Fever.
		Acute Primary Pneumonia.
		Acute Influenzal Pneumonia.
		26th December, 1924.
		Infective Jaundice.
		21st December, 1925.
		Infantile Paralysis.
		Polio-encephalitis.
		Encephalitis Lethargica.
		25th March, 1927.
		Chickenpox.

GROUP II.

Measles.	Mumps.	Ringworm.
German Measles.	Whooping Cough.	Scabies.

Table D shows the number of cases of notifiable infectious disease occurring in each parish during the year, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All the outbreaks were carefully inquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease.

TABLE D.—Number of Cases of Notifiable Infectious Disease recognised in each Parish during 1928.

Parish.	Diphtheria.	Scarlet Fever.	Puerperal Fever.	Erysipelas.	Ophthalmia Neonatorum.	Acute Primary Pneumonia.	Influenzal Pneumonia.	Pulmonary Tuberculosis.	Non-pulmonary Tuberculosis.	Encephalitis Lethargica.	Cerebro-spinal Meningitis.	Acute Anterior Poliomyelitis.	Dysentery.	Chickenpox.	Enteric Fever.	Continued Fever.	Malaria.	Total.
Glasgow (late Barony),	20	19	—	2	1	10	2	10	2	—	1	—	—	20	—	—	1	82
Cadder,	45	62	3	14	6	45	8	29	15	1	1	—	16	150	3	1	1	400
Rutherglen,	7	27	3	12	2	15	—	10	6	2	—	2	—	24	—	—	—	110
Carmunnock,	—	5	—	1	—	1	—	3	—	—	—	—	—	1	—	—	—	11
	72	113	6	29	9	71	10	52	23	3	2	2	16	195	3	1	2	608

The number of visits of enquiry made by the Sanitary Inspectors amounted to 554; intimations to parents and school teachers, 1,052; and 231 cases were removed to hospital. 207 apartments and 200 lots of bedding and clothing were disinfected, while 2 sets of clothing, and one bed and bedding were destroyed.

In addition to the visits made to mothers and babies and to tuberculous patients, which constitute their principal duties, the Nurse Health Visitors also visit cases of certain infectious disease, both notifiable and non-notifiable, and give advice in methods of nursing and carrying out of treatment. During the year 987 such visits were made, and the following summary shows the more important diseases for which these visits were made:—

Measles,	-	-	264	Ophthalmia Neonatorum,	44
Mumps,	-	-	226	Ringworm,	19
Impetigo,	-	-	155	Scabies,	15
Whooping Cough,	-	-	141	Debility	10
Pneumonia,	-	-	96	Acute Poliomyelitis,	2
Others,	-	-	15		

Smallpox.

No cases were notified during the year.

Vaccination (Scotland) Act, 1907.—The returns received from registrars showed that the number of statutory declarations of conscientious objection to vaccination amounted to 142, compared with 136 in the year 1927. Of this number 39 were in the registration district of Cadder East; 46 in Cadder West; 41 in Rutherglen; 14 in Shettleston; 1 in Possilpark; and 1 in Carmunnock. The proportion of declarations for the whole district was 23 per cent. of the total births.

Diphtheria.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, and 1928:—

Year.	Numbers.		Rates.	
	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.
Annual Average—				
1892-95,	25.2	8.2	32.6	0.75
1896-1900,	34.2	7.0	20.4	0.84
1901-05,	48.6	6.6	13.5	1.1
1906-10,	135.6	9.8	7.2	2.6
1911-15,	92.0	8.0	8.6	2.3
1916-20,	37.0	4.0	9.7	1.2
1921-25,	47.4	3.0	6.3	1.4
Year 1926,	74	6	8.1	2.3
„ 1927,	86	2	2.3	2.9
„ 1928,	72	4	5.5	2.1

64 of the cases notified were removed to hospital, 8 being isolated and nursed at home.

The outbreak of diphtheria which occurred at Stoneyetts Institution toward the end of 1927, and of which an account was given in the report for that year, had practically subsided at the beginning of the year. A few patients still give positive results of throat swabs, but by February these had all cleared up.

In one instance of a notified case of diphtheria, the death was ascribed to measles.

The monthly distribution throughout the year was as follows:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
13	9	10	3	7	2	5	1	4	4	7	7

The age incidence of the cases and deaths was as follows:—

Ages.	-1	1-5	5-15	15-25	25-45
Cases,	2	15	40	9	6
Deaths, - . . .	1	2	1	—	—

The arrangements inaugurated in 1922 for a supply of anti-toxin to be available to medical practitioners at the constabulary stations of the district have not been taken advantage of to any great extent, with the exception of one district.

Of the 64 cases admitted to hospital, 8 only had received anti-toxin before admission.

Scarlet Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, and 1928:—

Year.	Numbers.			Rates.	
	Cases.	Deaths.	Deaths per 100 cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Annual Average—					
1892-95, . . .	189	9	4·6	5·6	2·6
1896-1900, . .	245	10	4·0	6·0	2·4
1901-05, . . .	136	4	2·9	3·1	0·9
1906-10, . . .	224	6	2·7	4·4	1·2
1911-15, . . .	240	7	2·8	5·9	1·6
1916-20, . . .	63	1	1·2	2·1	0·2
1921-25, . . .	87	1	0·9	2·7	0·2
Year 1926, . . .	79	2	2·5	2·5	0·6
„ 1927, . . .	67	3	4·5	2·2	1·0
„ 1928, . . .	113	—	—	3·3	—

Of the 113 cases notified, 87 were removed to hospital. 3 of the cases notified were patients in Stoneyetts Institution, 2 being isolated in the Institution.

The monthly distribution of the cases was as follows :—

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
9	7	10	9	13	17	6	3	6	14	9	10

The age incidence of the cases was as follows :—

Ages—	Under 1	1-5	5-15	15-25	25-45	45-65	65 & upwards.
Cases,	1	19	70	18	3	1	1

Enteric Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, and 1928 :—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Annual Average—					
1892-95,	48	7	15·5	1·4	2·2
1896-1900,	47	6	13·0	1·1	1·5
1901-05,	40	5	13·3	0·9	1·2
1906-10,	40	3	8·4	0·8	0·6
1911-15,	10	2	19·2	0·2	0·5
1916-20,	5	0·2	3·8	0·1	0·06
1921-25,	1·8	0·2	10·0	0·05	0·06
Year 1926,	4	1	25·0	0·1	0·03
„ 1927,	—	—	—	—	—
„ 1928,	3*	—	—	·09	—

* These proved to be cases of Paratyphosus B.

A short summary of the three cases notified during the year follows :—

- (1) Adult Male.—This patient was a commercial traveller with headquarters in London. He had been moving about a good deal before coming to this district to stay for a time with relatives. He had not been feeling well for about 10 days before arriving here, and had in the course of that time stayed in hotels in various parts of England. He took to bed after arrival in this area and blood specimen was reported positive for B. Paratyphosus B.

- (2) Female, aged 3 years.—In this case the child had not been from home for some time, and there was no other case in the vicinity. The father of the child is a ship's officer and had been home on leave, but there was no history of any complaint, and the parent was only at home for two days before the child turned ill. Faeces positive B Paratyphosus B.
- (3) Male, aged 23 years.—This patient was employed in an office in Glasgow. He had been in the habit of spending week-ends throughout the summer on a yacht. There is no history of any other member of the party having had any illness. Blood reported positive for B. Paratyphosus B. This case occurred in the same locality as case No. 2, but there is no traceable connection, and this case occurred two months after the previous case.

The source of infection in these cases was not found. The cases were all isolated and nursed at home, and made satisfactory recoveries.

Cerebro-spinal Meningitis.

Two cases were notified and removed to hospital, where in one instance the diagnosis was altered to encephalitis lethargica.

Erysipelas.

Cases, 29. Deaths, 0. Removed to hospital, 8.

Pneumonia.

Cases, 81. Deaths, 37.

The cases were thus described in the notifications:—Lobar-pneumonia, 17; primary-pneumonia, 12; broncho-pneumonia, 11; influenzal-pneumonia, 10; interstitial-pneumonia, 1; pneumonia (unqualified), 30.

The age and sex-incidence of the cases were as follows:—

	Ages—	-1	1-5	5-15	15-25	25-45	45-65	65 and upwards.
Males, -	-	4	5	16	9	7	9	1
Females,	-	4	11	4	4	3	3	1

27 cases occurred during the first quarter of the year; 15 in the second; 9 in the third; and 30 in the fourth. The greatest number notified in one month was 14 in January.

With the exception of patients whose home conditions were such as to ensure suitable treatment, the cases were visited by the Nurse Health Visitors, and nursing advice and assistance given. In all 96 visits were made to 74 cases. 31 cases were removed to hospital, compared with 36 in the previous year.

Encephalitis Lethargica.

3 cases notified, none being removed to hospital. The cases were all of long standing.

Acute Anterior Poliomyelitis.

2 cases were notified during the year, 1 being removed to the Sick Children's Hospital, Glasgow, for treatment.

Dysentery.

16 cases of bacillary dysentery were notified from Gartloch Mental Hospital.

Mention was made in the previous report of cases of dysentery occurring in Gartloch Mental Hospital. During this year cases were notified at intervals. The cases were all of the same type and occurred, in nearly every instance, in patients who had been in the institution for a considerable period. Numerous agglutination tests were carried out, as well as examination of faeces. About 20 per cent. of the blood specimens tested agglutinated a Flexner type of organism recovered from the actual cases, but not conforming entirely to any usual strain. The cases were nursed in the Institution with all suitable precautions against spread of infection. No definite source of infection was discovered.

Chickenpox.

Chickenpox continues to be compulsorily notifiable until 31st December, 1930. During the year 195 cases were notified, 150 being from the Parish of Cadder, 24 from Rutherglen, 20 from Glasgow Parish, and 1 from Carmunnock.

Continued Fever.

1 case, aged 22 years, notified from Cadder.

This case was admitted to hospital, having been ill for about 3 weeks before admission, with somewhat vague symptoms, suggestive of influenza. During the period she was in hospital the temperature

remained elevated and gradually the patient became semi-comatose and died two weeks after admission without showing any symptoms leading to a definite diagnosis. Examination of the blood for Widal's reaction and of cerebro-spinal fluid were negative. After post-mortem examination, the diagnosis of malignant endocarditis was made.

Malaria.

Two cases were notified during the year.

In one case the notification was received after death, and in the other case the patient, a man, aged 43 years, was visiting relatives in the district when he took the attack of malaria, a condition from which he had suffered from early in 1927. He is an engineer, and was employed in Nigeria.

Non-notifiable Diseases.

The sources of information available to the Department regarding the prevalence of measles, whooping-cough, mumps, chickenpox, ring-worm, &c., are as follows:—(1) Information sent by schoolmaster for the purpose of certification of scholars absent on account of infectious disease; (2) applications made by school authorities for closure of schools when the attendance is interfered with by epidemic prevalence; (3) information obtained by the Nurse Health Visitors; and (4) the returns of deaths received from the local Registrars. The deaths due to the various non-notifiable diseases are shown in Table B.

The following tabular statement shows the deaths registered from measles and whooping-cough, and the deaths per 10,000 of the population in quinquennial periods since 1892, and for the years 1926, 1927, and 1928.

Annual Average—	Measles.		Whooping Cough.	
	Deaths.	Death rate per 10,000 Population.	Deaths	Death-rate per 10,000 Population.
1892-95,	17	5·2	9	2·8
1896-1900,	25	6·2	21	5·3
1901-05,	21	4·8	28	6·3
1906-10,	23	4·5	27	5·4
1911-15,	12	3·0	14	3·4
1916-20,	6	2·0	8	2·6
1921-25,	4·5	1·3	5·6	1·7
Year 1926,	5	1·6	1	0·3
„ 1927,	—	—	8	2·6
„ 1928,	6	1·8	6	1·8

Measles.—The number of cases brought to the notice of the Public Health Department from various sources was 303, and 7 cases were removed to hospital. 264 visits were made by the Nurse Health Visitors, who gave advice as to the nursing of the disease and preventing the spread of infection.

Whooping-Cough.—The number of cases brought to the notice of the Public Health Department was 130, and 1 case was removed to hospital. 141 visits were made by the Nurse Health Visitors.

Other Diseases.—The following cases of non-notifiable diseases were also treated in hospital:—Trachoma, 1; Vincent's angina, 1; pelvic cellulitis, 1; gonorrhœal ophthalmia, 1; impetigo, 1; pemphigus, 1; dermatitis, 1; pelvic peritonitis, 1; ringworm, 2. A mother was also admitted with her baby.

Schools.

No certificates for the closure of schools were given during the year. In some instances children were excluded from school, and all necessary steps taken to prevent the spread of infection.

Anthrax.

No outbreak of this disease in cattle was reported during the year.

Venereal Diseases.

Bacteriological Examinations.—The following table gives a list of specimens sent to the County Bacteriological Laboratory:—

			Sent by			Result	
			Medical Practitioners.	Coathill Clinic.	Motherwell Hospital.	+	-
Blood,	-	-	20	1	4	7	18
Swab,	-	-	10	—	—	1	9
Smear,	-	-	9	—	—	3	6
Tissue,	-	-	—	—	1	—	1
			39	1	5	11	34

Hospitals.

The Annual Report by the Physician-Superintendent of Lightburn Joint-Hospital forms an appendix to this report.

In addition to the cases treated in Lightburn Joint-Hospital, the following cases were treated in other institutions:—

Scarlet Fever,	-	-	-	2 cases in Belvidere Hosqital.
Diphtheria,	-	-	-	{ 2 cases in Belvidere Hospital.
				{ 1 case in Motherwell Hospital.
Pneumonia,	-	-	-	1 case in Motherwell Hospital.
Poliomyelitis,	-	-	-	1 case in Sick Children's Hospital.

Tuberculosis.

The provision of institutional treatment for tuberculosis was commenced in 1905, and notification was then arranged for on a voluntary basis. In the year 1907 pulmonary tuberculosis was made compulsorily notifiable in this District under the Notification Act, but was not made compulsorily notifiable throughout Scotland until 1st August, 1912. On 1st July, 1914, non-pulmonary tuberculosis was also made compulsorily notifiable throughout Scotland.

The following tabular statement shows the deaths from tuberculosis since the commencement of County administration; but, owing to the annexations which have taken place, it is not desirable to place too much reliance on these figures for the purpose of comparison, as the composition of the population, especially the proportion of urban to rural, has changed considerably:—

Annual	Pulmonary.			Non-Pulmonary.		
	Cases	Deaths	Death-rate	Cases	Deaths	Death-rate
Average—	Notified.	Registered.	per 10,000	Notified.	Registered.	per 10,000
1891-95,	—	42	12·8	—	29	7·1
1896-1900,	—	47	11·7	—	29	6·8
1901-05,	—	54	12·4	—	33	7·2
1906-10,	65	57	11·3	—	41	7·6
1911-15,	59	28	6·8	—	24	5·8
1916-20,	42	22	7·3	31	11	3·5
1921-25,	45·5	18·4	5·8	33·8	8	2·5
Year 1926,	*57	21	6·7	26	7	2·2
1927,	31	16	5·3	24	6	2·0
1928,	†52	24	7·2	23	8	2·4

* 12 of these were notified from Gartloch Mental Hospital.

† 3 do. do. do.

PULMONARY.

Mortality.—The deaths from pulmonary tuberculosis amounted to 24, giving a death-rate of 0·72 per thousand of the population. The deaths will be found classified according to parish in Table B, and the age incidence will be found in Table C.

Deaths in Relation to Notification.—Of the 24 deaths registered, 22 were notified cases, while one was notified as suffering from non-pulmonary tuberculosis. The death not notified occurred outwith the Lower Ward District and was transferred in.

Of the 22 notified cases—6 were notified in 1926; 5 in 1927; and 11 in 1928. No less than 12 of the cases died within three months of notification, viz., 3 within a week, 1 within a month, 2 within 3 months, while 6 were notified after death.

In addition, 1 death of a notified case of pulmonary tuberculosis was ascribed to non-pulmonary tuberculosis, while 1 was ascribed to bronchitis, and these are not included in the pulmonary figures. 2 deaths, notified as and ascribed to pulmonary tuberculosis, were transferred out, as their usual residences were outwith the Lower Ward area.

Notification.—The number of cases notified amounted to 52, and were classified as follows:—Definite (sputum not examined), 7; definite (sputum positive), 13; definite (sputum negative), 10; suspect for observation, 6; death before notification (including one death transferred in), 7; and not visited, 9.

The age incidence of the cases notified was as follows:—

Ages,	1-5	5-15	15-25	25-45	45-65	65 & upwards	Total.
Cases,	1	7	12	24	7	1	52

The occupations of the cases notified were:—Housewives, 8; scholars, 8; domestic servants, 4; clerkesses, 2; travellers, 2; labourer, 1; coal merchant, 1; stockbroker, 1; joiner, 1; contractor, 1; tailor, 1; miner, 1; salesgirl, 1; enginefitter, 1; railway foreman, 1; baker, 1; laundrymaid, 1; cashgirl, 1; housekeeper, 1; no occupation, 5; and not known, 9.

Housing Conditions of the Cases Notified.—7 of the cases lived in houses of one apartment; 17 in two-apartment houses; 5 in three-apartment houses; 4 in four-apartment houses; 14 in houses of more than four apartments, and 5 in institutions.

Total Cases on Record.—At the beginning of the year there were 102 cases on the register, and during the year 52 new cases were notified, making a total of 154 cases dealt with. Of the total dealt with, 26 died (24 from pulmonary tuberculosis, and two from other causes); 13 left the District; in 9 cases the names were removed from the register as the disease was arrested; in 2 instances as the condition was cured; while 3 names were removed on proving to be non-tubercular. At the close of the year 101 cases remained on the register.

Arrest or Cure of the Disease.—The cases whose names were removed from the register for this reason were notified as follows:—1 each in 1913, 1917, 1919, 1921; 3 in 1924; 1 in 1925; and 3 in 1926.

Proved Non-tubercular.—The 3 cases whose names were removed from the register for this reason were notified in 1927.

NON-PULMONARY.

Mortality.—The deaths from non-pulmonary tuberculosis amounted to 8 (4 meningeal, 3 abdominal, and 1 other tuberculosis), giving a death-rate of .24 per thousand of the population.

The deaths will be found classified according to Parish in Table B, and the age incidence will be found in Table C.

Of the 8 deaths registered, 4 were not notified cases. 3 of the cases not notified died outwith the area and were transferred in.

Notification.—The number of cases notified amounted to 23, and were classified as follows:—Glandular, 11; osseous or arthritic, 3; abdominal, 2; meningeal, 4; lupus, 1; others, 2.

The age incidence of the cases notified was as follows:—

Ages,	-	.5	5-15	15-25	25-45	Total.
Glandular,	-	1	4	4	2	11
Abdominal,	-	1	1	—	—	2
Meningeal,	-	4	—	—	—	4
Other forms,		2	1	3	—	6

Total Cases on Record.—At the beginning of the year there were 83 cases on the register, and during the year 23 new cases were notified, making a total of 106 cases dealt with. Of the total cases dealt with, 4 died; 3 left the District; in 11 cases the names were removed from the register as the disease was cured, healed, or permanently arrested; while in 1 case the diagnosis was altered. At the close of the year 87 cases remained on the register.

Revised Diagnosis.—Excluding patients who died, the diagnosis was altered in 1 instance to gastro-enteritis.

Arrest or Cure of the Disease.—The 11 cases removed from the register were notified as follows:—1 each in 1915, 1916, 1919, 1922, 1923; 2 in 1924; 1 in 1925; 2 in 1927; and 1 in 1928.

Domiciliary Treatment.—Cases of tuberculosis suitable for treatment at home are supervised by the Tuberculosis Officer and Nurse Health Visitors. The visits made by the latter during the year numbered 1,085—608 to pulmonary and 477 to non-pulmonary cases. In addition, a considerable number of patients attended the Child Welfare Centres and the Public Health Offices in Glasgow, while the attendances at Cambuslang Dispensary were as follows:—

<i>Cases.</i>	<i>Consultations.</i>
252	167

One shelter was in use throughout the year.

13 cases received nourishment in the form of milk and eggs. Malt, cod-liver oil emulsion, virol, and chemical food, were also supplied to suitable cases.

Sanatoria.

Pavilion VI at Lightburn Joint-Hospital is set aside for the treatment of tuberculosis cases from the Lower Ward area. In addition to this, cases are also treated at the various Middle Ward sanatoria, and the following table shows the number of patients in the various institutions during the year:—

P. = Pulmonary.		N.P. = Non-Pulmonary.				
Institution.		Remaining end of 1927.	Admitted during 1928	Discharged during 1928.	Died during 1928.	Remaining end of 1928.
Lightburn,	P.	8	26	17	9	8
	N.P.	7	14	10	—	11
Stonehouse,	N.P.	—	2	1	—	1
Hairmyres,	P.	1	—	1	—	—
		16	42	29	9	20

The duration of residence in hospital of the cases dismissed in 1928 was as follows :—

	Months—1-3	3-6	6-9	9-12	12 and over.
Pulmonary, - -	8	12	5	1	1
Non-Pulmonary, -	5	2	1	1	2

Refractories Industries (Silicosis) Scheme, 1919.

No examinations under the above scheme were made during the year.

MATERNITY AND CHILD WELFARE.

The number of *births* registered, corrected for transfers, was 623, the birth-rate for the year being 18.7 per thousand of the population. Of the 623, 24 were illegitimate.

Notifications.—Of the 623 births registered, 588 were notified, and, in addition, 16 still-births were reported.

Table E shows the births registered; births notified; visits made by the Nurse Health Visitors; the attendant at confinement as ascertained at the first visit; infant deaths registered, and the infantile death-rate, the information being tabulated according to parishes.

Infantile Mortality.—The deaths from infants under 1 year numbered 59, giving an infant mortality rate of 94.7 per thousand births, as compared with 81.1 in the previous year. Of the 59 deaths, 30, or 50.8 per cent., were due to developmental causes, which include prematurity, atrophy, &c. Of these 30 deaths, 21, or 70 per cent., occurred during the first four weeks of life.

Maternal Deaths.—Five deaths occurred in relation to pregnancy and confinement.

In two cases, death was ascribed to “Puerperal Septicæmia.” In one of these cases a child in the house was found to be suffering from scarlet fever, and had been in contact with the patient up till the time of her removal to hospital. In the second case the patient had been in poor health for some time previous to her confinement.

Of the three remaining cases, one was ascribed to phlegmasia alba dolens and pulmonary embolism, one to eclampsia, and the remaining one to acute general toxæmia of pregnancy.

TABLE E.—Lower Ward District.

	Births.		Notified. Stillborn.	Number of Visits.			Attendant at Confinement.		Infant Deaths.	
	Registered.	Alive.		First.	Subsequent.	Total.	Doctor.	Midwife.	Registered.	Rate per 1000 Births.
Glasgow (late Barony),	121	108	4	66	724	790	33	33	10	16.1
Cadder, ...	380	367	9	320	2,146	2,466	166	151	36	57.7
Rutherglen, ...	110	104	3	84	929	1,013	40	44	13	20.9
Carmunnock, ...	12	9	—	9	27	36	9	—	—	—
	623	588	16	479	3,826	4,395	248	228	59	94.7

Table F shows the infant deaths arranged according to the classification requested by the Board of Health:—

Table F.

					AGE PERIODS.					
					Weeks.		Months.			Total.
					- 1	1-4	1-3	3-6	6-12	-12
Chickenpox,	-	-	-	-	—	—	—	—	—	—
Measles,	-	-	-	-	—	—	—	—	1	1
Scarlet Fever,	-	-	-	-	—	—	—	—	—	—
Whooping-Cough,	-	-	-	-	—	—	—	1	2	3
Diphtheria and Croup,	-	-	-	-	—	—	—	—	1	1
Erysipelas,	-	-	-	-	—	—	—	—	—	—
Mumps,	-	-	-	-	—	—	—	1	—	1
Tuberculous Disease,	-	-	-	-	—	—	—	1	1	2
Meningitis (not tuberculous),	-	-	-	-	—	—	—	—	—	—
Hydrocephalus,	-	-	-	-	—	—	—	—	—	—
Convulsions,	-	-	-	-	1	—	—	—	—	1
Pneumonia (all forms),	-	-	-	-	—	—	—	4	3	7
Influenza,	-	-	-	-	—	—	—	—	1	1
Bronchitis,	-	-	-	-	—	—	1	—	1	2
Diarrhœa and Enteritis,	-	-	-	-	—	1	1	—	1	3
Other Digestive Diseases,	-	-	-	-	—	—	—	1	1	2
Diseases of Ductless Glands,	-	-	-	-	—	—	1	—	—	1
Congenital Malformation,	-	-	-	-	—	—	1	—	—	1
Congenital Heart Disease,	-	-	1	-	—	—	—	—	—	1
Organic Heart Disease,	-	-	-	-	—	—	1	—	—	1
Premature Birth,	-	-	-	-	12	1	1	—	—	14
Atrophy, Debility, and Marasmus,	8	-	-	-	—	—	2	4	—	14
Atelectasis,	-	-	-	-	—	—	—	—	—	—
Injury at Birth,	-	-	-	-	1	—	—	—	—	1
Suffocation (overlying),	-	-	-	-	—	—	—	—	—	—
Syphilis,	-	-	-	-	—	1	—	—	—	1
All other causes,	-	-	-	-	—	—	—	1	—	1
					23	3	8	13	12	59

Puerperal Fever.—6 cases were notified and 5 were removed to hospital. In one instance a midwife was in attendance at the birth. In one instance the diagnosis was altered to scarlet fever. 3 died, and these are referred to under the heading of maternal deaths.

Still-births.—Special visits of enquiry were made, and the records of 15 cases showed that the following conditions were noted as the probable cause:—

(a) *Affecting the Mother.*—Difficult labour, 3; delayed labour, 2; ill-health, 2; ante-partum hæmorrhage, 1; unknown, 2.

(b) *Affecting the Child.*—Prematurity, 3; anencephalic, 2.

In 11 instances the foetus was stated to be normal in appearance; in 3, macerated; and in 1, the condition was unknown.

In 7 instances the confinement was normal; in 2, difficult; and in 6, forceps were used.

None of the mothers were otherwise employed than at their household duties.

In 6 cases the still-birth was the first pregnancy; in 1, the second; in 2, the third; in 2 the fourth; in 1, the fifth; in 2, the ninth; and in 1, the tenth.

In 6 instances a doctor alone was present at the confinement; in 6, a midwife alone; and in 3, the confinement took place in a institution.

Ophthalmia Neonatorum.—9 cases were notified, 3 being notified by doctors; 3 by midwives; and 3 by health visitors. In 3 instances a doctor attended at the confinement, in 3 a midwife, while in 3 instances the confinement took place in an institution. Four cases were removed to hospital. In 4 of the cases the result of swabs was positive for gonococci. In the remaining cases, bacteriological examination showed that bacteria other than gonococci was the cause of the ophthalmia.

Necessitous Cases.—An allowance of milk was granted to nursing and expectant mothers and to children who were ill-nourished and in necessitous circumstances. All applicants are seen by the Medical Officer, the assistance granted being governed by the following standards:—Where the weekly income per adult (children under 14 years of age counting as half adults) was less than 7s., full assistance was given; if from 7s. to 8s. 6d., half assistance; if over 8s. 6d., no assistance.

Forms showing the home and financial circumstances of the applicants are in use. These have proved of great assistance in checking the statements.

Throughout the year 74 families were granted assistance, at an estimated cost of £73 8s. 7d., compared with 116, at an estimated cost of £99 13s. 5d. last year.

Child Welfare Centres.—It is again a pleasure to acknowledge the voluntary assistance of the lady members of the two Child Welfare Associations, and to know that their work is still being carried on.

	Year.	Mothers.	Children.	Con- sulta- tions.	Lectures.	Demon- strations.
Chryston,	1919,	1,123	609	210	10	36
	1920,	1,577	1,267	443	10	38
	1921,	1,413	958	303	7	29
	1922,	1,851	1,358	487	10	33
	1923,	1,747	1,596	430	11	37
	1924,	1,516	1,346	353	10	38
	1925,	1,676	1,369	250	6	41
	1926,	2,305	1,616	320	6	20
	1927,	1,865	1,407	277	13	32
	1928,	1,858	1,467	339	8	22
Bishopbriggs,	1919,	1,260	926	282	10	38
	1920,	1,748	1,321	438	9	39
	1921,	1,688	1,041	379	7	30
	1922,	2,225	1,427	526	10	31
	1923,	2,128	1,745	487	10	37
	1924,	2,374	1,892	601	10	38
	1925,	2,145	1,593	571	8	38
	1926,	3,141	2,145	544	5	22
	1927,	1,896	1,332	409	8	35
	1928,	1,722	1,185	292	7	36
Cambuslang,	1924,	403	339	233	—	—
	1925,	135	199	190	—	—
	1926,	817	223	304	—	—
	1927,	430	370	390	—	—
	1928,	545	527	347	—	—

Consultations at Centres.—The conditions found are summarised in the following table:—

Mothers—

Ante-natal,	-	-	35	Debility,	-	-	-	3
Post natal,	-	-	26	Ear, Nose and Throat,	-	-	-	3
Gynæcological,	-	-	7	Nephritis,	-	-	-	2
Anæmia,	-	-	5	Respiratory,	-	-	-	2
Skin Conditions,	-	-	5	Others,	-	-	-	6

Children—

Nutritional and Gastro-				Adenitis,	-	-	-	8
intestinal,	-	-	88	Phimosiis,	-	-	-	6
Skin,	-	-	62	Stomatitis,	-	-	-	4
Respiratory,	-	-	45	Tongue-tied,	-	-	-	3
Rickets,	-	-	23	Convulsions,	-	-	-	3
Ear, Nose, and Throat,	-	-	16	Hare-lip and cleft palate,	-	-	-	2
Eyes,	-	-	13	Anæmia,	-	-	-	2
Debility,	-	-	13	Teeth,	-	-	-	2
Hernia,	-	-	12	Tuberculosis,	-	-	-	2
Injury,	-	-	8	Others,	-	-	-	8

Visitations.—The number of visits made by the three Nurse Health Visitors was 5,989, of which 465 were first visits; 3,826 re-visits; 9 special visits; 46 infantile mortality visits; 208 ante-natal visits; and 1,435 re-visits to children from the age of 18 months to 5 years. These figures, of course, do not include the visits made by nurses to cases of infectious and contagious disease, which are referred to on page 483.

Hospital Admissions.—The County Maternity Hospital at Bellshill and Convalescent Home at Calderbank continued to grant facilities for the treatment of suitable cases.

47 mothers were treated at Bellshill, the conditions requiring removal being as follows:—Unsuitable home, 21; difficult confinement, 10; abortion, 4; ante-natal treatment, 3; ante-partum hæmorrhage, 2; eclampsia, 1; albuminuria, 1; induction of labour, 1; pyelitis, 1; epileptic, 1; toxæmia, 1; and cardiac disease, 1.

3 mothers, 1 baby, and 5 children were treated in Calderbank Home. The mothers were admitted for the following reasons:—Ante-natal debility, 2; post-natal debility, 1. They were all in necessitous circumstances and could not provide themselves with the rest they required. The results were excellent.

Of the 6 children treated in Calderbank Home, 2 were suffering from rickets, 2 from eczema, 1 from debility, while 1 was admitted with mother.

It should be noted that where patients were transferred from one institution to another (*e.g.*, from Bellshill Hospital to Calderbank Home) it is taken as one admission.

In addition, 8 mothers from the District were admitted while in labour to the Royal Maternity Hospital, Glasgow, all going in of their own accord; while one mother was admitted to the ante-natal ward on account of albuminuria.

GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done, under the headings, “Housing,” “Water Supply,” “Drainage and Sewage Disposal,” “Nuisances,” “Seasonal Workers,” “Workshops,” “Sanitary Condition of Dairies, Cowsheds, and Milkshops,” &c., &c.

Milk (Special Designations) Order (Scotland), 1923.

One dealer's licence was granted for the sale of "Grade A" milk during the year.

Veterinary Inspection of Dairy Herds.

The observation and investigation of bovine tuberculosis, especially in dairy stock, has, since the year 1904, been the subject of veterinary inspection, and the detailed result of the work in the Lower Ward is here given.

Under the Milk and Dairies (Scotland) Act, 1914, it is an offence to sell milk from a cow suffering from *any disease* liable to infect or contaminate the milk. Samples of milk are taken from any animal which is suffering from any suspicious condition of the udder. If, on examination, in the bacteriological laboratory such samples are found to contain streptococcus mammitis or other infective germs, a letter is sent to the owner of the animal directing his attention to the fact that it is an offence to sell or expose for sale the milk from such a cow for human consumption. During the year 1928, 12 such letters have been sent. If the samples are found to contain tubercle bacilli the animals are dealt with under the Tuberculosis Order.

VETERINARY INSPECTION OF DAIRY HERDS.—YEAR 1928.

Parish.	Herds Registered	Herds Inspected.	Cows Inspected.	Cows with Abnormal Condition of Udder.						Samples of Milk.			
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Totals.	Number taken.	Number found to contain tubercle.	Number found to contain infectious organisms.	Negative.
Cadder,	59	67	1,514	3	44	6	8	1	62	20	3	7	10
Barony,	11	15	286	—	8	—	4	1	13	5	—	1	4
Carmun- nock,	18	19	624	1	19	2	7	—	29	9	1	4	4
Ruther- glen,	4	7	95	—	5	—	3	—	8	3	—	1	2
	92	108	2,519	4	76	8	22	2	112	37	4	13	20

COUNTY OF LANARK
DISTRICT OF THE LOWER WARD.

Midwives (Scotland) Act, 1915.

Annual Report by the Medical
Officer of Health, 1928

STAFF.

Administrative Officer.

J. HUME PATTERSON, F.R.F.P.S.(Glas.), D.P.H.

Executive Officer and Inspector of Midwives.

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(All hold C.M.B. Certificate.)

MARGARET L. WINCHESTER.

JEAN M'KEE.

MARY C. DICKSON.

REPORT.

Practising Midwives.—13 midwives resident within the District notified their intention to practise during the year. 1 resided in the Parish of Glasgow, 11 in Cadder, and 1 in Rutherglen. 20 midwives resident outwith the District attended cases during the year, all of whom have recognised qualifications.

Certification.—Four of the midwives hold the Certificate of the Central Midwives Board for Scotland by examination, while the remaining 9 are *bona fide* midwives.

Length of time in Practice.—Six have been in practice for over 30 years, while 3 have acted for over 20 years.

Attendance at Confinements.—623 births were registered, and of this number, 604, or 97 per cent., were notified, and 40 per cent. were attended by certified midwives. The following table gives, according to Parish, the number of births registered and notified, and of those notified, the person in attendance at confinement:—

Parish.	Number of Births.		Attendance at Confinement.		
	Registered.	Notified.	Doctor.	Midwife.	Handywoman.
Glasgow, - -	121	112	76	36	—
Cadder, - -	380	376	208	167	1
Carmunnock, -	12	9	9	—	—
Rutherglen, -	110	107	62	45	—
	623	604	355	248	1

Inspection of Midwives.—The total number of inspections made by the Assistant Inspectors of midwives was 58. They found that the *personal conditions* were satisfactory in 10 instances and only fair in 3. The *home conditions* were described as satisfactory in 10 instances and only fair in 3.

Four midwives in the District are unable to read or write, and their *records* are kept by members of the family.

Extent of Practice.—The registers kept by the midwives showed that 2 attended from 20 to 30 confinements; 2 from 10 to 20; 6 from 1 to 10; and 1 had attended none; while 2 only attended confinements with a doctor.

Medical Assistance.—In 56 instances a doctor was called to the assistance of the midwife, in accordance with the rules of the Central Midwives Board. The conditions requiring medical aid were as follows:—On account of mother—delayed labour, 13; difficult labour, 12; ruptured perineum, 6; abnormal presentation, 2; adherent placenta, 2; uterine inertia, 2; retained placenta, 2; prolapse of anterior lip of cervix, 1; hæmorrhage, 1; abortion, 1; premature twins, 1; rise of temperature, 1; rigidity of perineum, 1; stillbirth, 2; breech presentation, 1; illness, 4. On account of baby—discharging eyes, 1; prolapse of cord, 1; prematurity, 1; spina bifida, 1.

Payment of Doctor's Claims.—46 claims, amounting to £63 14s., were received, and of this sum £1 16s. was recovered from the husbands of the patients.

Puerperal Septicæmia (including all notifications of Puerperal Fever):—Six cases were notified, 5 being removed to hospital, where the diagnosis in one instance was altered to scarlet fever. In one instance a midwife was in attendance at the birth. 3 of the cases died, the cause of death in two instances being puerperal septicæmia, and in one instance phlegmasia alba dolens and pulmonary embolism.

Stillbirths.—During the year 16 stillbirths were reported, 7 of which were attended by doctors, 6 by certified midwives, and 3 occurred in institutions. 3 forms notifying stillbirths were received from midwives during the year.

Ophthalmia Neonatorum.—Nine cases were notified, 3 by doctors, 3 by midwives, and 3 by health visitors.

Liability to be a Source of Infection.—Three forms were received from midwives who had been in contact with cases of puerperal fever.

Artificial Feeding.—No form notifying advice of artificial feeding by a midwife was received during the year.

Report by the Sanitary Inspector

For the Year, 1928.

Obituary.

It is with deep regret that I record here the loss through death of my colleague, Mr. Matthew Underwood, who died on 12th September, 1928.

Mr. Underwood was appointed Building Inspector to the Lower Ward District of the County of Lanark, in August, 1898, and held the appointment till he retired in August, 1928, and was thus 30 years in the service of the District Committee.

Mr. Underwood was a Civil Engineer, commencing his apprenticeship with the Corporation of Glasgow, and was engaged in many improvements in the City carried out during that period. As a young man he migrated to South America and spent a few years in Buenos Aires. Returning to this country he obtained a position on the staff of the old Burgh of Govan, before taking up his appointment with the Lower Ward District Committee.

A man of unassuming character whose word was his bond, Mr. Underwood was highly respected by all classes in the community with whom he came in contact.

Area, 21,101 Acres.

Estimated Population, 30,000.

HOUSING.

The first instalment of the Committee's Housing Scheme under the 1924 Act, comprising 530 houses—186 houses of three apartments and 344 of two apartments—was completed and occupied during the year.

As the agreed upon ratio of the houses to be erected was 60 per cent. two apartments and 40 per cent. three apartments it was found that there was an excess of two-apartment houses over the stipulated 60 per cent. Representation was made to the Scottish Board of Health that the excess of the two-apartment houses should rank for subsidy, but the Board of Health insisted that the percentage be maintained and that 44 additional three-apartment houses would require to be built or the subsidy on the excess of the two-apartment houses would not be paid.

Application was made to the Board of Health for sanction to erect these additional 44 three-apartment houses, which was granted, the houses to be erected in the following areas—20 at Springfield Lodge, Auchinairn, 16 at Chryston, and 8 at Farne, Rutherglen. These houses are now completed and occupied.

The question of erection of more houses is still exercising the minds of the Committee, and at the end of the year they were awaiting a report of the ground available at the existing housing sites and the number of houses which could be built thereon.

Overcrowding is still prevalent in the denser parts of the district, in some instances being very serious. No general alleviation of such conditions can be accomplished meantime as the rents of the houses which are being erected are entirely outwith the powers of the poorer class to pay. These people, therefore, must of necessity still occupy their overcrowded dwellings until such time as houses are erected, the rents of which can be made commensurate with the earning powers of the labouring class of the community.

As has been stated in previous reports what is most urgently required are houses with two large apartments and modern conveniences, with a smaller percentage of three apartments, of no more than 25 per cent. of the whole.

A very pleasant function took place in May, when the Right Honourable Sir John Gilmour, M.P., H.M. Secretary of State for Scotland, opened the Farme Housing Scheme and inspected several of the other schemes.

The Chairman, in inviting Sir John Gilmour to open one of the houses at the Farme Site, afforded him information as to the action which had been taken by the Lower Ward District Committee in providing houses for the working classes. The Committee had erected, under the Housing Act of 1919, a total of 480 houses, 72 being at Lambhill, which had since been included in the City of Glasgow by the Glasgow Extension Act of 1925, leaving 408 still in the Lower Ward, 284 being of three apartments and 124 of four apartments. They had also erected 574 houses under the Housing Act of 1924, 344 being of two apartments and 230 of three apartments, which gives a total of 982 houses.

Sir John Gilmour expressed his views regarding the matter of the provision of houses for the working classes and stated that, while considerable progress had been made, there still remained much to be done, but he expressed appreciation of the action which had been taken by the District Committee. He agreed that there was a call for a larger number of two-apartment houses with modern conveniences, but said that, while it was proper that Local Authorities should provide such houses, they must take into account also the needs of large and growing families, and it was proper that a reasonable proportion of larger houses should be included in Housing Schemes.

The Second Scottish National Housing Trust Scheme of 542 houses at Springboig is now completed and fully occupied.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

A considerable amount of work was done during the year in respect of inspection of houses which were considered not to be in a reasonable state of repair. 103 inspections were made and 64 representations for Closing Orders were submitted to the Public Health Committee, who, after due consideration, issued 63 Closing Orders. In addition 9 houses were closed voluntarily.

A row of 5 houses in Mollinsburn, for which Closing Orders were issued, was handed over by the proprietor to a local builder, who carried out the following repairs thereto:—

- (1) New drains with necessary trapping arrangements.
- (2) Sinks and gravitation water supply to each house.

- (3) Cleaned outside walls and put on two coats of cement plaster and roughcasted.
- (4) Repaired roofs and rhones.
- (5) Separated old weaving shop from dwelling-house by means of brick wall.
- (6) Removed all soil below floor levels at rear and gable and laid cement pavement.
- (7) Cleared away old privies and ashpits and built three new closets and ashpit, and 5 coal cellars.

The flooring of one house has still to be relaid and when this is completed the Closing Orders may be determined as the houses will then be fit for human habitation.

The instance referred to in last year's report of a house in the village of Carmunnock, on which a Closing Order was served, being reoccupied was still giving attention during the year. As the District Committee could not prosecute under the Housing (Scotland) Act, 1925, the case was remitted to the Procurator-Fiscal, who refused to take the matter up. The service of a Demolition Order brought the owner to interview the Committee to express his views. However, after consultation, further inspection and reports by the Medical Officer and myself, the Committee's actions in closing the house and the issuing of a Demolition Order were adhered to.

Complaint was made by the tenant to the Scottish Board of Health, and after inspection by an officer of that Department without previous notification to the Committee and the resultant report by him, the Committee informed the Board of Health that they saw no reason for interfering with their previous decision.

At the end of the year the house was still occupied and the only course now open to the Committee is to proceed with the demolition of the house.

Frankfield House, an old country mansion at Stepps, which was latterly let out as one and two-apartment houses and occupied by four families, was closed voluntarily and demolished during the year. The premises had become dilapidated and were without a sufficient water supply and proper sanitary conveniences.

HOUSING (RURAL WORKERS) ACT, 1926.

Three applications for grants in terms of the above Act were received and considered by the Committee, one of which was granted. In this case it was proposed to reconstruct a dwelling-house, introduce gravitation water supply, fit in bath and water closet, and sink and tub in scullery, supply and fit new windows, and renew and slate a portion of the roof.

In one other application the whole work of converting an existing out-building into a three-apartment house with bathroom and scullery, was completed before application was made to the Committee. The application was referred to the Board of Health, who agreed with the Committee that the application for grant should have been made prior to the start of the alterations, and the grant was therefore refused.

The third application referred to a tenement of houses, into which it was proposed to introduce water supply, renew floors and windows, provide the necessary drainage, and reslate the roof. It was considered that the proposed alterations were in the nature of a repair and did not comply with Clause 5 of the approved Scheme, and further, that the houses were not occupied by agricultural workers. This decision was confirmed on being referred to the Board of Health.

NUMBER OF HOUSES COMPLETED UNDER 1924 ACT.

Site.	2 Apts.	3 Apts.	Total.
Auchinloch,	12	8	20
Auchinairn,	18	10	28
Millerston,	32	20	52
Garnkirk, No. 1 Site,	36	12	48
Do., No. 2 Site,	20	24	44
Chryston,	24	28	52
Steppsill,	30	—	30
Carmunnock,	12	8	20
Moodiesburn,	8	4	12
Gartcosh,	20	8	28
Bishopbriggs,	40	34	74
Springfield Lodge, Auchinairn, ...	20	36	56
Farne, Rutherglen,	36	8	44
Barnflat Street, Rutherglen, ...	24	12	36
George Gray Street, Rutherglen,	12	18	30
	344	230	574

Tabulated Statements A. B. C. showing Proceedings taken as regards the Inspection and Closure of Dwelling Houses.

A.—HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

1. Number of dwelling houses inspected,	103
2. Number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation,	86
3. Number of representations made to the Local Authority with a view to the making of Closing Orders,	64
4. Number of dwelling houses in respect of which Closing Orders were made,	63 (9 <small>In addition were closed voluntarily</small>)
5. Number of dwelling houses the defects of which were remedied without either the making of Closing Orders or the service of Notices under Section 3 (1) of the Housing (Scotland) Act, 1925,	14
6. Number of dwelling houses which after the making of Closing Orders were put in a fit state for human habitation,	5

B. HOUSING (SCOTLAND) ACT, 1925.

1. Number of dwelling houses in respect of which Notices were served under Section 3 (1),	16
2. Number of dwelling houses rendered fit for human habitation under Section 3 (1),	16
3. Number of dwelling houses in respect of which Closing Orders were deemed to have become operative under Section 3 (1),	—
4. Number of dwelling houses rendered fit for human habitation by the Local Authority under Section 3 (2),	—
5. Number of cases where Intimations were given under Section 20 (1) as to insufficient water-closet accommodation,	23
(a) Cases where requirements were complied with by owners,	24
(b) Cases where works were carried out by Local Authority after failure of owners to do so,	—
(c) Cases still pending,	—

6. Number of houses (a) one apartment, and (b) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111, (a) — (b) —

C.—HOUSING AND TOWN PLANNING, &c. (SCOTLAND), ACT, 1919.

1. Number of cases where Notices were served under Section 40 (1) to provide dwelling houses with water supply, 5
 (a) Cases where requirements were complied with by owners, 5
 (b) Cases where work was carried out by Local Authority, —
 (c) Cases still pending, —

The following is a list of Houses in respect of which Closing Orders were made:—

	Parish.		1 Apt.	2 Apts.	3 Apts.
BISHOPBRIGGS.					
120 Kirkintilloch Road,	Cadder	...	4	2	—
130-134 do.	do.	...	—	8	1
70-72 Mavis Valley,	do.	...	2	1	—
RUTHERGLEN.					
Burn Row,	Rutherglen	...	14	—	—
Cross Row,	do.	...	—	8	—
Front Row,	do.	...	2	1	—
Farne Row,	do.	...	9	4	2
Cow Town,	do.	...	2	3	—
			33	27	3

The following is a list of Houses in respect of which Demolition Orders were made:—

			1 Apt.	2 Apts.	3 Apts.	4 Apts.
BISHOPBRIGGS.						
85 to 109 Auchinairn Road,	...	...	2	8	—	—
111 Auchinairn Road,	...	...	—	4	—	—
141 to 151 Auchinairn Road,	...	...	2	5	2	1
70 to 74 Auchinairn Road,	...	...	1	3	1	—
GARTCOSH.						
1 to 4 Garnqueenhill,	...	...	4	—	—	—
CARMUNNOCK.						
Wellside,...	...	...	1	—	—	—
			10	20	3	1

The following is a list of Houses Demolished :—

	Parish.		1 Apt.	2 Apts.	3 Apts.	Apts.
BISHOPBRIGGS.						
81 to 83 Auchinairn Road,	Cadder	...	—	4	—	—
85 to 109 do.	do.	...	2	8	—	—
111 do.	do.	...	—	4	—	—
141 to 151 do.	do.	...	2	5	2	1
70 to 74 do.	do.	...	1	3	1	—
104 to 128 do.	do.	...	4	4	1	2
130 to 136 do.	do.	...	4	4	—	—
146 to 152 do.	do.	...	4	—	—	—
188 to 194 do.	do.	..	4	—	—	—
No. 2 Pit, Mavis Valley.	do.	...	2	1	—	—
Crowhill Cottages,	do.	...	3	2	—	—
Brown's Land,	do.	...	24	6	—	—
STEPS.						
Steppphill,	Barony,	...	6	1	—	—
Cardowan Square,	do.	...	9	—	—	—
High Cardowan Row,	do.	...	—	6	—	—
Garterraig Row,	do.	...	3	7	1	—
CHRYSTON.						
Garnkirk Square,	Cadder,	...	6	49	3	—
CARMUNNOCK.						
Westhills,	Carmunnock,	...	—	3	—	—
RUTHERGLEN.						
Front Row, Eastfield,	Rutherglen,	...	2	1	—	—
Cross Row, Eastfield,	do.	...	—	8	—	—
Burn Row, Eastfield,	do.	...	14	—	—	—
Cow Town, Farme,	do.	...	—	4	1	—
Farme Rows, Farme,	do.	...	8	4	2	—
			98	124	11	3

BUILDING BY-LAWS.

The number of plans lodged was 44, all of which were approved, as compared with 48 in the previous year.

The number and size of the houses, as indicated by the plans lodged, were as follows:—43 houses of three apartments; 95 houses of four apartments; 10 houses of five apartments; and 4 houses of six apartments; also church and vestry; 1 double shop; 1 single shop; 3 garages; and 1 brickwork; addition to and alteration of 1 dwelling-house; and of office building.

In administering the Building By-laws the Building Inspector reports that 30 visits of inquiry were made regarding plans lodged, and 1,240 inspections were made during the progress and construction of houses and other buildings. In connection with sites, formation of roads, and construction of sewers and other matters relative to the Committee's Housing Schemes, 327 inspections were made.

277 applications of the smoke-test were made to the drains and plumber work of 247 properties.

772 houses, 2 workshops, and 1 alteration and addition to dwelling-house were passed for occupancy.

The approximate total value of all new buildings erected within the district was £75,000.

The final measurement costs of all new streets and sewers laid at the Committee's Housing Schemes during the year were as follows:—

Roads.	£6,527
Sewers,	£982

WATER SUPPLY.

The water supply to the areas for which the Corporation of Glasgow is directly responsible continues to be well maintained.

A complaint was received during October from a number of owner occupiers in Peveril Avenue, Burnside, regarding the obnoxious taste of the water. The complaint was immediately investigated and there was no doubt there was a very tarry taste and odour from the water. As the water supply was from the Glasgow mains through a supply cistern, it was thought that defective or dirty cisterns might be the cause. These were examined in a number of houses and samples taken for analysis, but as the complaint was general over twenty-two houses, and as this supply was obtained from a main at the end of the circuit, the Glasgow Corporation were also notified and asked to have their pipes scoured. The scouring was carried out, and, after further investigation, it was found that two ball valves were in a defective condition, and as these were situated in a roadway adjoining Peveril Avenue, which had been recently tar sprayed, it was concluded that this was the cause of the trouble. These defective valves have been removed and there has been no further reason for complaint.

Cadder Special District.—The supply over the whole of the Special District has been well maintained. Several complaints were received, due to defective pressure caused by the silting up of the smaller mains.

A complaint was received from Cardowan House, Stepps, that the water supply to that house was irregular and intermittent, and the Superintendent reported that the 3-inch pipe in Cardowan Road had been tested, when the pressure was found to be twenty pounds, but when the valve to Messrs. James Dunlop & Co.'s colliery was opened and a supply taken the pressure dropped to ten pounds. The colliery manager was instructed that the supply to their tank must be taken only during the night. It was also reported that the 2-inch main from Cardowan Road to Cardowan House was corroded, and if it was cleaned a constant supply to the house could be maintained.

Complaint was received from the Glasgow District Board of Control as to the unsatisfactory supply to East Muckeroft steading. The engineer reported that the East Muckeroft steading, which stands at a relatively high level, was supplied by a 2-inch pipe from Bridgend, and that the pipe had been in operation for thirty years and was badly encrusted. In the circumstances the supply was more or less precarious. The immediate cause was the heavy draught by the Auchengeich Colliery Company, and the Superintendent was arranging with the Colliery management to cease drawing water at night. Meantime the Committee authorised the scraping of the 2-inch pipe, at a cost of £70.

The supply to part of the Burnside area is obtained from the Middle Ward District supply, and a complaint was received from the Secretary of the Burnside and District Ratepayers' Association drawing attention to the quality and pressure of the water supplied to the residents. A similar complaint was received last year when a sample was analysed and found to be perfectly wholesome, although slightly discoloured. Since the complaint was received I am informed that its appearance has greatly improved.

The supply to the residential district of South Lenzie is, by arrangement, provided by the Commissioners of the Burgh of Kirkintilloch, and has been satisfactorily maintained during the year.

REPORT BY WATER SUPERINTENDENTS. SOUTHERN SECTION.

The total quantity of water registered for the year 1928, for all purposes, at Lethamhill and Glenboig meters was 173,624,000 gallons, which includes 4,460,000 gallons registered at Glenboig, being a decrease of 24,787,000 gallons as compared with the preceding year.

The average daily consumpt for all purposes was 475,682 gallons, as compared with 543,591 gallons last year, showing a daily decrease of 67,909 gallons.

The consumpt for all purposes, excluding Gartloch Asylum and trade purposes, was 106,206,000 gallons, showing a daily consumpt of 293,715 gallons.

The population of the District, including part of the Northern Section, supplied by Lethamhill meter was 10,728.

The daily consumpt per head for all purposes was 44·34 gallons

The daily consumpt per head, excluding Gartloch Asylum and trade purposes, was 27·37 gallons.

The consumpt for trade purposes and other than domestic purposes was 67,418,100 gallons, a decrease of 1,083,900 gallons, as compared with the consumption of the preceding year.

The iron piping was increased by the District Committee during the year for Mr. M'Lintock by 56 yards of 3-inch pipe in Whitehill Road, Stepps, and for Messrs. Beveridge & Stevenson by 50 yards of 3-inch pipe in Third Avenue, Steppshill, Stepps, being altogether 109 yards. This brings the iron piping in the Southern District up to 53 miles 1178 yards.

There were 18 new connections made to water mains, 7 for domestic supplies and 11 for supplies for building and other purposes.

During the year 643 lineal yards of 2-inch pipe to East Muckcroft Farm, near Bridgend, were scraped, which improved the supply materially.

NORTHERN SECTION.

The total quantity of water registered through the meters was 42,163,000 gallons, being an increase of 2,486,000 gallons, as compared with the preceding year.

The average daily consumpt for all purposes was 115·19 gallons, an increase of 6·49 gallons as compared with last year. Taking the population at 3,827 as per Police Census, the consumpt was equal to 30·10 gallons per head per day.

The consumpt for domestic and other purposes, except trade purposes, and water which passed through four check meters to Glasgow area, amounted to 34,420,000 gallons. This gives an average daily consumpt of 94·043 gallons, equal to 24·57 gallons per head per day of the population.

Iron piping in this section was increased by laying 870 yards of 6-inch iron pipe from culvert at canal to Messrs. Blackie & Son's new works at Bishopbriggs.

The total length of the mains in this part of the District is now 37 miles 608 yards.

There were 34 connections made to the water mains during the year, 19 for domestic supplies, and 15 for building and meter supplies.

DRAINAGE.

SPECIAL DRAINAGE DISTRICTS.

Barony.—Westthorn Sewage Purification Works.—In last year's report it was stated that the works, as presently constructed, were not capable of dealing with the normal flow of sewage, and this has been more pronounced during the past year. A proportion of the sewage was bye-passed to the river, and in consequence a complaint was received from the Town-Clerk of Glasgow regarding the discharge of crude sewage to and pollution of the River Clyde. The matter was remitted to our Engineer, who reported to the Committee in the following terms:—"The experimental stage at these works may be regarded as past and it has been demonstrated that if we are to obtain a high-class effluent the works as they stand will not deal with the total volume of sewage coming down the Tollcross burn sewer, with the result that generally a small proportion of the sewage has to be bye-passed to the river. This may be due to a large increase in the volume of sewage reaching the works. The Tollcross burn sewer is in the hands of the Glasgow Corporation and we have called the attention of the City Engineer more than once to its condition, which at one time was known to admit a

“considerable volume of surface and burn water. The discharge from this sewer was carefully gauged before the new works were designed and the data so obtained supplied to the Activated Sludge Company. In order to test this question we are having a series of observations made, and if it is found that there is an abnormal increase in the sewage flow, due to the defective condition of the Tollcross burn, we shall be able to provide an answer to the Corporation’s complaint.

“Originally it was our intention to put the three tanks into commission at Tollcross, but on consideration of the data collected and on consultation with the Activated Sludge Co., Ltd., and Mr. Tennant, of the Glasgow Corporation Sewage Department, it was decided to keep the third tank in reserve and it was not equipped with aerating apparatus. Observations were not completed at the end of the year.”

The matter was still under the consideration of the Committee, who await a further report from the Engineer.

A chokeage occurred in the 9-inch sewer in Gartocher Road. This sewer joins a manhole on the north side of the Hamilton and Glasgow Railway Bridge and then flows westwards to Budhill Avenue. There is very little flow in this part of the sewer, and it is also affected by the heavier flow running southwards from Springboig.

A subsidence occurred at Westthorn Sewage Works, at a portion of the road opposite the central wall of the aerating tanks, caused by a defective joint whereby the sewage washed away the soil.

Apart from these defects the sewers are in good order, having been examined and manholes and dustpans cleaned out during the year.

Two connections were made to the sewers during the year.

Rutherglen (Landward).—The intercepting sewer and the sewer in Baronald Street were almost continually surcharged during the year. Seldom, if ever, can the arch of the sewer be observed, unless when the scour valve is open. During wet weather the conditions are exceptionally bad and the surcharging becomes so serious as to effect adjoining properties in Downiebrae Road and the Public Highway. The overflow in Downiebrae Road is always in action.

Great difficulty is experienced in making new connections to the sewer, so much so that such work must be carried out during Sunday, or when the scour valve is open.

So bad have the conditions become, owing to the extensive building operations which have been carried out, that complaints were received in the months of February and November of surcharging of drains and flooding of gardens at Springfield Park, Burnside. This has never before been experienced, and on receipt of the first complaint we were inclined to think that the flooding was caused by the holding back of surface water in the adjoining fields. On receipt of the November complaint, and on immediate examination of the drains and sewers, it was conclusively proved that very serious surcharging does take place during heavy rainfall. It would appear that this complaint is really caused by the insufficient capacity of the Stonelaw Road sewer, within the Burgh of Rutherglen.

In reporting this condition of affairs to the responsible Committee I stated that the main sewer in Downiebrae Road was becoming more and more a source of considerable anxiety and the surcharging to which it was subjected was practically continuous and to a degree which would not allow of any further additional discharge to the sewers without nuisance being created on the roadways by the emission of sewage through the manhole covers.

Nothing further can be added other than to emphasise the serious nature of the complaint.

The sewers were not cleansed during the year and this work, as formerly carried out, seems to be of no great aid to the trouble.

The flushing chamber at Dalnarnock was set in action for a short period to prevent the silting of the sewer in Cambuslang Road and the manway in the football field cleansed.

Three manhole covers and frames were replaced during the year in Cambuslang Road, and one ventilating shaft at Burnside was removed.

Two surface subsidences in Downiebrae Road were observed, one being above the track of the overflow pipe was readily filled in by the road surfacemen, the other, however, was caused by a burst water pipe. This was repaired by the owner and the hole filled up with light material. Great difficulty was experienced during the year at the Farme Pit owing to an overflow from the boilers flowing over the roadway and percolating down the side of the sewer manhole

where the subsidence above referred to had taken place. Numerous letters to the Colliery Company to re-divert this overflow were of no avail and accordingly we had the manhole setts reset and concreted to throw the water to the channel.

Additional drainage was required for the Eastfield Paper Works, and, on investigation of the present arrangements being made, it was found that a 2-feet culvert was laid through the works, taking all the drainage thereof to the sewer. The condition of this culvert was far from good and it was observed that a great deal of fibre used in the manufacture was being discharged to the sewer. On this being pointed out to the Manager, and on our advice, a complete new system of drainage was agreed upon with catchpit arrangements for the recovery of the fibre.

It is significant that when any of the works in the District are closed down for a holiday period no surcharging of the intercepting sewer occurs.

Six connections were made to the public sewers during the year, and in one case difficulty was experienced owing to running sand.

Eight connections were made to private sewers in the District.

The following sewers were taken over by the Committee as public sewers, there being sufficient drainage assessment derived from the subjects draining to the sewers to meet the interest and sinking fund on the cost of the sewers:—

- (1) 9-inch sewer, extending to 81 yards, in Dovecot Park Road (now St Ronans Drive).
- (2) 9-inch sewer, extending to 50 yards, in Springfield Park Road (now Havelock Terrace).
- (3) 12-inch sewer in Southhill Avenue, from the centre of Springfield Park Road to the centre of Dovecot Park Road.
- (4) 9-inch sewer in Underwood Road.
- (5) 12-inch sewer in Southhill Avenue between Dovecot Park Road and Underwood Road.

The following new sewers were approved of by the Committee:—

- (1) Proposed 12-inch sewer at east end of Southhill Avenue.
- (2) Proposed 9-inch sewer in proposed new road, east of, and parallel to, Underwood Road.
- (3) Proposed 9-inch sewer through ground known as Burnside Loch.

Bishopbriggs and Auchinairn.—The sewers throughout the District continue in good working order. There was, however, a bad chokeage in the 12-inch main sewer on the Kirkintilloch Road. The Glasgow Corporation Tramway Company's employees were repairing the permanent way of the tramway track and inadvertently the cran of the tar boiler was left open. The boiling tar flowing along the channel gained access to the sewer through a gully and completely choked the sewer. The Engineer of the Tramway Company accepted liability, but before the sewer was completely cleared 8 yards of 12-inch fireclay piping had to be lifted and relaid.

With regard to the infiltration of water to the sewers, as was mentioned in last year's report, our Engineers have spent a considerable time on inspection and examining the sewers. While they have found a few leakages the main defect still remains to be discovered. They are continuing their efforts and it is to be hoped they meet with success, as this excess of water has a detrimental effect on our results at the works.

The sewers and manholes were examined during the year and the dustpans cleaned out.

Two manhole covers on the Kirkintilloch Road were replaced by a heavier type owing to their dangerous condition.

The following extensions of the sewers were carried out during the year :—

- (1) Extension of the existing sewer in Kenmure Avenue.
- (2) Sewer in Kirkintilloch Road connected to existing sewer behind the bungalows on the north side of Kirkintilloch Road, and an extension in a proposed new road leading off the south side of Kirkintilloch Road.

Sewage Disposal Works.—A report from the Medical Officer was submitted to the Committee regarding the excessive flow of sewage to the works and crude sewage being discharged to the burn. Our Engineer is still pursuing his investigations with regard to the excessive flow, but there is no sufficient reason why crude sewage should discharge to the burn unless during heavy rain.

As stated in last year's report the consent of the Committee was obtained to instal a slow motor to aerate the sewage during the night from 12 p.m. to 8 a.m. This was carried out, but we found that, while

it was an improvement, it did not give the result anticipated, the slow motion of the aerating cone not having sufficient suction, nor did it cause sufficient aeration. With the approval of our Engineer the fast motor was continued throughout the 24 hours and much better results are being obtained. The sewage is kept continually agitated and little or no bulking is taking place in the pockets, with the result that a good effluent is being obtained.

Two new sludge pits were constructed to deal with the detritus sludge and 3-inch iron pipes coupled up to the pump so that the sludge is deposited direct from the detritus tanks to the sludge pits.

One connection was made to the sewers during the year.

Two connections were made to private sewers in the District.

Stepps Drainage.—There is nothing special to report with regard to this District.

The sewers and manholes were inspected during the year and found in good order.

No complaints of surcharging were reported.

The only extension of the sewers was in Mount Harriet Drive, where the 9-inch private sewer was extended eastwards to drain new bungalows on the south side of the road.

Sewage Disposal Works.—The septic tanks were cleaned out twice during the year and the sludge deposited in the sludge pit. As the farmer has not removed any sludge for a considerable time some arrangement will require to be made before the tanks are again emptied.

The mechanical filters were found to be defective and on examination the ballrace and free wheel were found to be broken. These were replaced and the filters are now in good working order.

Owing to the increased building in the area a proposal for further filter capacity and provision of an additional automatic sewage distributor and the acquisition of more ground to allow of the extension of the filter beds and sludge pits and providing iron fencing to enclose the extended area, at an approximate cost of £1,800, was submitted to the Committee for their approval.

The matter was, meantime, continued for consideration.

Five connections were made to the sewers during the year.

Chryston and Muirhead.—At the end of December an overflow on the sewer was observed discharging to Bothlyn Burn at Bedlay estate. On examination it was found that a serious choke had taken place. At an adjoining manhole it was also observed that there was a clack valve on the sewer, which was in a rusted condition and retarding the free flow of the sewage. This was removed.

Owing to flooding occurring at Lime Cottages, the Superiors were requested to consider the piping of the burn at Woodhead. This was carried out, and the work also cured a source of nuisance as a number of houses drained to this burn through cesspools.

A small portion of a ditch at the side of Garnkirk Station Road was also piped owing to complaint of nuisance being created.

One permit was granted for connection to sewer.

Two water-closets were erected, and 2 privies and 1 privy-midden demolished.

Two drainage systems were reconstructed during the year.

Sewage Disposal Works and Tanks.—The Bridgend works were cleaned out once during the year. These works are usually cleaned out twice in each year, but owing to the great difficulty in getting the sludge removed, there was for a considerable period during the year no accommodation for the sludge.

Complaint has been made by me repeatedly during the past few years regarding the unsatisfactory condition of the filters and filter media at the works. During the year, however, a complaint was received from the County Council of Lanark, and the Committee instructed me to report regarding the trays, and as to the distribution of the sewage effluent over the filters. I did so, submitting a graph plan showing the area of trays in use. After discussion it was agreed that my estimate of £20, for the re-levelling of the trays and the supply of new shutters, &c., should be accepted, although I stated that this would not altogether eradicate the trouble but would only alleviate the present conditions. The work of improvement had not been commenced at the end of the year.

The Committee were again reminded of my previous report regarding the dangerous condition of the sludge pits, owing to the large amount of sludge contained therein, and to the fact that there was no protection fence round them,

Estimates were submitted to the Committee, in view of the increase, present and prospective, of the population draining to these works to extend the capacity of the sewage tanks and filters, to provide automatic sewage distributors and to extend the sludge pits, and for the acquisition, if necessary, of more ground to allow of an extension of the sludge pits, and the provision of iron fencing to enclose the extended area, at an approximate cost of £3,000. It was agreed, however, after expression of views, and in view of economy and restriction of expenditure to continue consideration of the matter.

Drumcavel tanks and Moodiesburn tank were cleansed once during the year.

Gartcosh.—The drainage system referred to in last year's report, which had not been completely linked up with the sewer, was under consideration, and after an offer of part payment for the work entailed to the owner of the property, and this offer having been refused, no further action was taken.

Complaint regarding the pollution of the burn at Hayhill farm received the attention of the Medical Officer of Health.

A new 6-inch fireclay drain was laid at the rear of M'Lean Place, for the purpose of draining 14 new water closets which were erected.

Periodical flooding occurred in the lanes at the rear of Messrs. Smith & M'Lean's new houses, and it was arranged with the Architect to have gullies put in and connected to the sewer.

One connection was made to the sewers during the year.

Sewage Disposal Works.—The sewage tanks were cleansed once during the year. The necessary alterations to the sewage works and the construction of an iron pipe across the burn, for the purpose of taking the drainage of Messrs. Smith & M'Lean's Works, which were explained in last year's report, were completed during the year. The alterations to the tanks have certainly proved a benefit, and the treatment of the sewage is more satisfactory. Great difficulty was experienced in having the work carried out owing to the inclement weather, which caused delay and damage to work previously completed.

Messrs. Smith & M'Lean were notified during the latter part of the year that the brickwork of the manhole erected on the works side of the burn was giving way, owing to the pressure exerted on it by the iron pipe carrying the sewage from the works. The firm

denied liability, but after a joint inspection was made the Manager agreed to reconnect the pipe with the manhole and have it anchored to prevent forward movement.

Carmunnock.—Pollution of Padmire burn took place during the year, and after careful examination of the sewers it was discovered that the old sewer in Kirk Lane was slightly choked, causing an overflow to the burn at that point to be in action. The chokage was cleared and there was no further pollution.

Sewers were laid in Windlaw and Gallowhill Roads by Messrs. Aitken & Sons for the drainage of the new houses being erected by them. Permission was granted by the Drainage Committee, after report by the Engineers, and the work completed to their satisfaction.

Three smoke-tests were carried out during the year to drainage systems in the District.

Three water-closets, 2 washhand basins, and 2 baths were put in to existing houses during the year.

One house was supplied with inside water supply.

Sewage Disposal Works.—The sewage tanks were cleansed twice during the year. To facilitate the cleaning of the open sludge chamber a chain pump was provided in lieu of the floodgate pump, and proved more useful for this work.

During the heavy rainfall in November the works were completely flooded and the sewage flowed over the grounds. This, however, is exceptional, and as there is a large amount of surface water draining to the sewers in this area the works could not be expected to deal with such a flow.

South Lenzie.—The sewers in this area are the property, and under control, of the Commissioners of the Burgh of Kirkintilloch.

During the year complaints were received regarding the flooding of the basement at Burnbank Terrace, also the Police Station houses in Auchinloch Road. This occurred at frequent intervals during the year. A chokage had taken place in the main outfall sewer, near Millersneuk, which probably accounted for the flooding of these properties. No surcharge has taken place since the chokage was cleared, but there has not been sufficient flood water to thoroughly test it.

Glenboig Drainage (Joint Scheme).—The Drainage Scheme for this District has been under consideration for some time, and in view of the high cost involved it was suggested that the scheme might be carried out in instalments, the first portion to consist of such works as would remedy, as far as possible, the existing unsatisfactory conditions of the village. It was remitted to the Middle Ward Engineer to submit such a scheme, with estimate of costs, &c.

At a later date this scheme was submitted to the Committee for their consideration, and after general discussion the members were of opinion that a drainage scheme on the lines indicated would not meet the needs of the Special District in a satisfactory manner, and having reviewed the whole situation they decided to recommend that the scheme of sewerage and sewage purification, as set forth in a previous report by the Lower Ward Engineers, estimated to cost £20,048, should be undertaken, subject to the following modifications and conditions:—

- (1) that certain sewers in the Lower Ward Engineer's scheme should be of a larger size, as recommended by the Middle Ward Engineer, the extra cost involved being £1,100;
- (2) that satisfactory terms can be arranged for the land required for the proposed Sewage Purification Works.
- (3) that the position as regards the minerals underlying the proposed site for the Purification Works is found to be satisfactory; and
- (4) that the rough settling tanks be omitted from the proposed scheme of sewage purification.

It was agreed that a report on the minerals should be obtained from Messrs. D. & G. R. Rankine, Mining Engineers, Glasgow.

This report has since been obtained, to the effect that the minerals under the proposed site had already been taken out. Meantime a further site for the purification works is under consideration.

The Lower Ward Committee considered the foregoing scheme, and having regard to the cost of the scheme and the high rate of assessment which would be imposed, and considering the unsatisfactory condition of the houses generally in the village, and the unsuitability of the present time for incurring serious additional expenditure, remitted the matter back to the Joint Sub-Committee, with a view to their considering further as to a modified scheme, sufficient to meet the Public Health requirements of the area.

LIGHTING.

SPECIAL DISTRICTS.

North Shettleston.—The extension of North Shettleston District was completed during the year, and 105 lamps erected in the extended area, which included the National Housing Trust Scheme at Springboig.

Bishopbriggs and Auchinairn.—A proposal was submitted by the Lighting Committee for approval by the District Committee to light Balnuidy Road, by the erection of 20 lamps and the laying of gas mains, &c., at an approximate cost of £873.

The Committee, having considered the proposal, was of the opinion that the benefits which might be derived by the lighting of the road, in view of the absence of prospects of development, did not warrant the expenditure involved as it would mean a substantial increase in the rates and a definite departure from the principles followed by them in such cases, and the Committee unanimously resolved not to sanction the proposed works nor the incurring of the proposed expenditure.

A modified scheme of lighting was submitted to the Committee to erect 10 lamps, the illuminant to be electricity, at a capital cost of £126, and annual maintenance charge of £50 12s. This scheme received the approval of the Committee, but at the end of the year the work had not been commenced.

Carmunnock.—A Special Lighting District having been formed for the village of Carmunnock, the erection of the lamps and laying of cables has been completed.

28 lamps were erected, and the scheme has received the unanimous approbation of the ratepayers.

SCAVENGING DISTRICTS.

There are eight Special Scavenging Districts in the Lower Ward, which include all the populous areas, with the exception of Glenboig, Carmunnock having been formed into a Special District during the year.

North Shettleston.—The amount of refuse to be collected in this area was greatly increased during the year, owing to the erection of 542 houses by the Second National Housing Trust, and it was found necessary to increase the scavenging staff to cope with the work.

A daily collection and removal of refuse is maintained at the tenement property and a bi-weekly collection at the villa and semi-detached houses, the refuse being delivered, as formerly, to the Glasgow Corporation Refuse Destructor at Haghill, the cost of burning being 4s. per ton.

Owing to the condition of the refuse floats it was necessary to purchase a new one, at a cost of £58, and it would be advisable that another be purchased, as the old floats may go out of commission at any time, and their present upkeep for repairs is a heavy annual charge.

An effort was made to include within the Special District North Mount Vernon, which is within the Lighting Area, but outwith the Scavenging District. The matter was considered by the Committee, and objections heard, when it was agreed to drop the proposal meantime. This is unfortunate, as it would have been much better to have included this District and had the household refuse removed in a systematic manner.

The quantity of refuse collected during the year was 828 tons 19 cwt., and 31 tons 10 cwt. of road mud and sweepings from private streets and lanes were deposited in the coup.

The backcourts and private streets and lanes were cleansed regularly during the year.

22 new dustbins were supplied during the year.

Bishopbriggs.—The work in this District has increased considerably, owing to the extension of the area and the completion of the several housing schemes.

A weekly collection of refuse is maintained, an extra cart being put on when required.

No complaints were received throughout the year.

A considerable number of dustbins are now in use in place of ashpits. Effort is being made, where possible, to eliminate the ashpit.

The refuse is still being deposited at the disused pit on the lands of Springfield, and the coup continues to be maintained in good order.

For some time the Scavenging Committee have had an arrangement with the Highways Committee whereby the road surfacemen swept the private streets in the District for the sum of £40 per annum. This arrangement has now been terminated and the roads now swept by the Scavenging Committee's own men.

38 new dustbins were supplied during the year.

1,553 cart loads of refuse were deposited in the coup.

Stepps.—The work in this District continues to increase owing to the number of houses being built. A bi-weekly collection of refuse is maintained and has been entirely satisfactory throughout the year. No complaints were received.

Dustbins are now in use at the tenement properties and ashpits used as shelters for the bins.

The refuse is being deposited on low lying ground on the west side of the Magazine Road. The paper from every load is collected and burned, and at times the coup has an unsightly appearance, but this is gradually being improved.

1,072 cart loads of refuse were collected during the year.

10 new dustbins were supplied during the year.

Rutherglen.—The work has been maintained during the year in a fairly satisfactory manner. It is becoming more evident that, owing to the large increase of building in the District, more attention is required in the lower district. In my opinion more control should be vested in the Sanitary Inspector, as it seems to me that a system of direct labour would assist materially in maintaining a good level of service in scavenging.

990 tons 3 cwt. of refuse were collected and delivered at the Destructor, and 100 tons to coups in the District.

90 new dustbins were supplied during the year.

39 common closes or passages were limewashed during the year.

Chryston and Muirhead.—This work was carried out during the year in an efficient manner, although I must reiterate that it would be advisable if the tenemental properties were given a bi-weekly cleansing. This was recommended to the Committee, but so far has not been acted upon. It was also suggested that a covered scavenging cart should be provided, to which they did not agree.

No complaints were received during the year, and may be taken as a sign of efficient and sufficient service so far as the ratepayers' are concerned.

The coup is being well attended to, and it was arranged with the Superior's agent during the year to have the cross ditches filled with tins and loose material. As mentioned in my last report a turntable in one of the lanes in Muirhead was necessary. This has now been completed by the Estate owner.

Correspondence took place during the year regarding the condition of the privies and privy middens at Garnkirk Square. These had been disused since the houses were condemned and demolished and were left in an unwholesome condition. The conveniences were ultimately cleansed, although it was somewhat difficult to impress on the owners their responsibility in the matter.

1,233 cart loads of refuse were collected during the year.

32 dustbins were supplied during the year.

Gartcosh.—The work is still being carried out by private contract, and is satisfactory.

No complaints were received during the year.

8 privies and 2 privy middens were demolished during the year, and 14 water-closets and 8 dustbins, in lieu thereof, supplied. This is a great improvement, and negotiations are proceeding for further work of this nature being carried out.

A large number of caution notices were posted up during the year regarding proper disposal of refuse and use of water closets, &c.

Carmunnock.—I am glad to be able to report that, after considerable trouble and work, a Special Scavenging District has been formed here, and the work put in operation during the year.

This was brought about by the Superior closing the refuse coup at the quarry, and leaving the inhabitants of the village with nowhere to dispose of their refuse. This incident occurred in April, but the Superior was prevailed upon to re-open the coup. This he did until June, on condition that arrangements were made for the formation of a Scavenging District for the village. After reports, plans, &c., were prepared and submitted to the Committee the District was finally formed, and the work of scavenging commenced by contract on 15th August.

As no coup could be obtained in the village, or near surroundings, it was left to the Contractor to make arrangements for the disposal of the refuse, subject to the satisfaction of the Sanitary Inspector. This has been done, and the refuse is being cleared weekly and disposed of at a coup in the adjoining district.

Where ashpits were in use the tenants have been prevailed on to provide portable receptacles for their refuse, and this has proved a good arrangement.

SPECIAL DISTRICTS.

The Special Districts for the purposes of Water Supply, Drainage and Sewage Disposal, Scavenging and Lighting, are shown in the following table. The rates of assessment (half owners, half occupiers) for the year 1928-29 are also shown. A blank in the assessment column means that no district has been formed for the special purpose indicated :—

District.	Parish.	Water.	Rate of Assessment per £			
			Drainage.	Sewage Purification.	Scavenging.	Lighting.
Bishopbriggs and Auchinairn.	Glasgow and Cadder.	1/7½	1/5	—	5d.	6¼d.
(a) Cadder.	do.	1/7½	—	—	—	—
Carmunnock.	Carmunnock.	3/1	1/5	—	—	7½d.
Chryston and Muirhead.	Cadder.	1/7½	1/1½	—	7d.	4¾d.
Gartcosh.	do.	1/7½	5d.	—	2d.	—
(b) North Shettleston.	Glasgow.	Levied by Glasgow.	5·38d.	(f) 1/3d.	6¾d.	7d.
Rutherglen.	Rutherglen.	do.	2¼d. (e)	5·38d.	4d.	5½d.
South Lenzie.	Cadder.	7½d.	4d.	—	4½d.	6¼d.
Stepps.	do.	1/7½	7½d.	—	4½d.	4½d.
Glenboig Lighting.		—	—	—	—	6½d.

NOTES :—(a) The Cadder Water Supply District includes part of Bishopbriggs, Cadder Village, Auchinloch, Mavis Valley, Jellyhill, Stepps, Chryston and Muirhead, Bridgend, Mossvale, Heathfield, Garnkirk, Moodiesburn, Mollinsburn, Gartcosh, and Garnqueen; (b) Glasgow Water is supplied to Budhill, Springboig, Sandyhills, North Mount Vernon, part of Carntyne, Lightburn, Colston, and part of Bishopbriggs, in Glasgow Parish; Auchinairn, in Cadder Parish; and Farme, Eastfield, and part of Burnside, in Rutherglen Parish; (c) Barony Drainage; (d) no assessment for Drainage; (e) Glasgow Sewage Purification rate assessment; (f) Southern portion of District outwith Glasgow Sewage Purification Area.

NUISANCES.

The following summaries show the number of nuisances dealt with in each parish, and the number of intimations and notices served, &c. :—

	Glasgow (late Barony).	Cadder.	Rutherglen.	Carmunnock.	Total
Recurring Nuisances under Section 16, Sub-secs. 2, 5, and 7,	4	34	59	3	100
Structural Nuisances under Section 16, Sub-secs. 3, 4, 6, 8, 9, and 10, - - -	1	9	11	—	21
	5	43	70	3	121

Intimations served in terms of Section 19 of the Public Health Act, 1897, - - - - -	121
Notices served in terms of Section 40, - - - - -	2
Notices served in terms of Section 117, of the Burgh Police (Scotland) Act, 1892, - - - - -	13
Notices served in terms of Section 23, of the Burgh Police (Scotland) Act, 1903, - - - - -	26
Number of letters calling attention to insanitary conditions in addition to those dealt with by formal intimation, - - - - -	206
Letters issued under the Milk and Dairies (Scotland) Act, 1914, - - - - -	101

In connection with the above statement, 8,727 visits of enquiry and inspection were made for the detection of nuisances and in connection with complaints received, which numbered 109. The usual type of nuisances were most prominent during the year. The ubiquitous choked trap is always with us, generally caused through the careless use of the drains by the tenants of tenemental property.

An instance of the difficulties created by back areas common to more than one tenement was given during the year at one of the District Committee's own Housing Schemes. The general community were creating a thoroughfare from one street to another through the common closes and back areas. It was arranged to remedy this by the erection of a door at the rear of one of the closes.

TABLE SHOWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT AND THE NUMBER OF COMMON WATER-CLOSETS, DRY-CLOSETS, PRIVY MIDDENS, AND ASHPITS SERVING 2, 3, 4, AND 5, OR MORE TENANTS RESPECTIVELY; ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

531A

1928.	Number of Occupied Houses.	WATER-CLOSETS.							DRY-CLOSETS.							PRIVY MIDDENS.												*ASHPITS.												Houses without Water and Sink inside.
LOCALITY.		Total	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	8	12	14	15	Total	1	2	3	4	5	6	8	12			
Rutherglen,	1268	193	11	168	8	3	—	3	6	6	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	5	2	—	1	—	—	—	—	2	19		
Chryston and Muirhead, ...	818	53	12	16	25	—	—	—	4	2	1	—	1	—	—	—	4	2	1	—	1	—	—	—	—	—	—	22	18	—	2	—	2	—	—	—	2			
Gartcosh,	673	25	20	—	5	—	—	—	15	—	3	12	—	—	—	—	4	—	—	—	—	—	1	—	—	3	—	—	3	2	—	—	—	—	1	—	—	25		
Bishopbriggs and Auchinairn,	1027	59	15	38	6	—	—	—	5	—	2	1	2	—	—	—	1	—	—	—	—	1	—	—	—	—	—	21	6	1	3	1	10	—	—	—	5			
*Carmunnock,	244	25	13	9	2	—	1	—	2	1	—	1	—	—	—	—	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10			
Stepps,	714	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
So. Lenzie,	479	9	4	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	1	5	—	—	—	—				
Shettleston,	1171	34	2	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Mollinsburn,	56	—	—	—	—	—	—	—	19	5	10	3	1	—	—	—	10	4	—	2	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	10			
†Garnkirk,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Heathfield,	61	—	—	—	—	—	—	—	14	—	—	—	14	—	—	—	4	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	56			
Mavis Valley and Jellyhill,	225	—	—	—	—	—	—	—	45	—	18	27	—	—	—	—	3	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	93			
Glenboig,	83	4	4	—	—	—	—	—	20	—	5	2	8	1	—	4	10	—	2	1	—	—	—	—	4	1	—	2	2	—	1	—	—	—	1	—	39			
TOTALS,	6819	404	81	270	46	3	1	3	130	14	39	46	26	1	—	4	39	8	3	4	1	2	4	1	6	4	4	2	59	28	2	6	2	17	1	1	2	259		

* Tenants using Bins.

† Now Demolished. Houses Condemned as Uninhabitable.

I am afraid that in some of these tenement schemes the back areas will, through time, be the source of a very serious nuisance, owing to the soft soil surface. Consideration will require to be given to the asphaltting of these areas in the near future.

On visiting one of the new houses of a tenant removed from an uninhabitable dwelling, invasion of the house with common house fly was observed, and this during the cold weather of December. Dirt and carelessness seemed to be the cause of the trouble.

There is a great number of hawkers of fruit in this area, and, in some instances, these hawkers have premises, usually of wood, at the rear of their dwelling-houses. In almost all instances, although kept in fairly good order as regards general cleanliness, there is no water supply led in. In my opinion power ought to be given to the Public Health Department for complete control over all such premises.

Several complaints were received from the Police as to the excessive black smoke being emitted by Sentinel Wagons on the Public Highways, principally in the Bishopbriggs area, where there are at times a considerable number passing to and from the sand quarries in the vicinity. The complaints were considered by the Committee and a warning sent to the owners in each case.

HOUSE DRAINS.

335 visits were made relative to the condition of house drains and the provision of water closets, &c. 129 inspections were made of the drainage system of properties, including visits during work of repair and reconstruction. 20 defective drainage systems were remedied or reconstructed. 17 applications of the smoke-test were made to 15 properties, 5 of which were found defective and made good. 43 new water closets were provided with the necessary drainage. 16 connections were made to public sewers, 10 connections to private sewers, and 206 visits were made to the several Sewage Disposal Works in the District.

In accordance with the Scottish Board of Health's circular, of 17th January, 1927, I submit the following table:—(1) as to the number of common water closets in use; (2) number of houses without water supply and sink inside the house; (3) number of (a) dry closets; (b) privy middens; (c) ashpits, showing for each separately the number serving 2, 3, 4, 5, and more tenants respectively:—

COMMON CLOSSES, STAIRS, AND WATER-CLOSETS.

In connection with the by-laws relating to the cleansing of closes, stairs, and water-closets at tenement properties, 284 inspections were made. 13 notices in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were issued, requiring owners to whitewash closes and staircases, and 40 closes and staircases were whitewashed. In addition 36 letters of warning were issued *re* improperly fouling and abusing water-closets.

INFECTIOUS DISEASE.

554 visits of inquiry were made by the Sanitary Officers; the disinfection of 207 apartments and 200 sets of bedding and articles of clothing was carried out. 1,052 intimations to parents and school teachers were issued.

OFFENSIVE TRADES.

The number of offensive businesses on the register at the close of the year was 5. The nature of the businesses comprise the following :— 2 soap works at Bishopbriggs, 1 fish meal and manure works at Rutherglen, 1 blood work, and 1 tallow and gut work situated at Carntyne, Shettleston.

The licence for one of the soap works at Bishopbriggs was transferred during the year to another owner. At these works soap powder is manufactured and it is unlikely that soap boiling will again be part of the business.

The manufacture of soap in small quantities is still being carried out at the other work.

The blood work continues to be carried on in a satisfactory manner, no complaints being received during the year.

The tallow and gut work, in which the latest appliances are installed, continues to be carried out in a satisfactory manner.

The fish meal and manure work still takes up a considerable amount of our time, as constant supervision is required. This could be obviated to a great extent if by-laws for the conduct of the business were in force.

Numerous complaints were made by the Inspector during his visits of inspection, and although these are attended to through time it usually means repeated visits and reiteration of former complaints. Certainly improvements are being carried out almost every month, but I feel that, in many instances, the commercial instinct is blinding altogether the health standpoint.

The condensing plant in operation during 1927 was scrapped, owing to the clogging of the sprays, and a new washing tower erected, filled up with vitrified stoneware, and having a continuous and abundant supply of water. The vitrified stoneware acts as a scrubbing agent, and the fumes after condensation and scrubbing are led to the outside discharge tower at the bottom of which the partially purified vapours are treated with chlorine gas. This has been found quite efficacious although the system could still be improved.

There are still a number of improvements which we would like to see carried out, and it is hoped during the coming year to have these attended to.

The works were inspected during the year by a deputation from Aberdeen Town Council, who were impressed by the methods adopted to prevent nuisance.

PUBLIC SCHOOLS.

The public schools continue to be maintained in good order.

In the old portion of Bishopbriggs School the obsolete trough closets were taken out and 8 water-closets substituted.

PRIVATE STREETS.

In connection with Section 39 of the Public Health (Scotland) Act, 1897, 27 inspections were made, and plans and specifications of streets prepared and submitted to the Committee with a view to their adoption as Public Highways.

The following streets were also, after repair by the Highways Department, assumed as Public Highways:—

BURNSIDE DISTRICT.

Crawfurd Road, from Blairbeth Road to Peveril Avenue.

Kincath Avenue, from Burnside Road eastwards.

Southhill Avenue, from Rutherglen boundary to Underwood Road.

St. Ronan's Drive, from Dukes Road to Rutherglen boundary.

Greystone Avenue, from Rutherglen boundary to Underwood Road.

MILLERSTON.

Station Road, from Cumbernauld Road northwards.
 Craigbarnet Crescent, from Station Road eastwards.
 Rowallan Terrace, from Coshneuk Road westwards.
 Cumbernauld (branch road), from Cumbernauld Road north-eastwards.

BISHOPBRIGGS.

Arnold Avenue, from Springfield Road to Emerson Road.
 Emerson Road, from Arnold Avenue eastwards.
 Springfield Crescent, from Emerson Road southwards and south-westwards.
 Springfield Square, from Springfield Crescent westwards and eastwards.

SHETTLESTON.

Greenfield Road, from Hallhill Road.
 Hermiston Place, from Hermiston Avenue northwards.
 Glen Road, from Glen Avenue northwards and southwards.
 Hermiston Road, from Hallhill Road northwards.
 Threestonehill Avenue, from Springboig Road to Hollowglen Road.
 Hermiston Avenue, from Greenfield Road to Hermiston Road.
 Glen Avenue, from Springfield Road to Hollowglen Road.
 Greenfield Avenue, from Greenfield Road to Hollowglen Road.
 Warriston Place, from Hermiston Road westwards.
 Colinton Place, from Hermiston Road westwards.

AUCHINAIRN.

Graham Terrace, from termination of existing Highway.
 Montrose Terrace, from Graham Terrace.

FACTORIES AND WORKSHOPS.

No communications were received from H.M. Inspector of Factories during the year.

114 visits were made to factories and 12 to workshops.

Inspections were made to sanitary conveniences, which were generally found in good order. 4 water-closets, 1 urinal, and 3 trough closets were erected in the several premises during the year, also the provision of additional drainage in connection with a workshop.

Three visits of inspection were made under Section 14 of the Factory and Workshops Act, 1901, and the necessary certificates issued.

Six workshops were registered during the year, and one removed from the register.

The register of workshops at the end of the year contains the following in each parish:—Barony, 2; Cadder, 49; Rutherglen, 6; Carmunnock, 9; classified as follows:—

Dressmakers and Tailors, - - -	3
Boot and Shoe Makers, - - -	12
Blacksmiths, - - - - -	4
Joiners, - - - - -	9
Painters, - - - - -	3
Plumbers, - - - - -	8
Slaters, - - - - -	4
Builders, - - - - -	4
Bakehouses, - - - - -	2
Garages, - - - - -	8
Concrete Block Manufacturers,	1
Paint and Varnish Manufacturers, -	1
Laundry, - - - - -	1
Miscellaneous, - - - - -	6
	<hr/>
	66
	<hr/>

MILK AND DAIRIES (SCOTLAND) ACT, 1914.

The number of cowkeepers and dairymen on the register at 1st January, 1928, was 135, and on register at 31st December, 1928, 140. 9 were registered during the year and 4 removed from the register. The total comprises the following:—Producers, 66; Producers and Retailers, 26; Retailers, 48.

The average number of cows in milk during the year was 2,000.

163 inspections were made of dairy premises during the year in connection with repairs and general cleanliness of premises, which are kept in good order with a few exceptions.

A considerable amount of work was done during the year in having the necessary repairs carried out to byres and dairy premises to bring them within the requirements of the Dairy By-laws.

Difficulty has been experienced with a number of owners, and, in some cases, no move has yet been made to improve the conditions, despite numerous letters and warnings. This year, however, an endeavour will be made to intensify the work and have all premises brought up to the standard required.

An interesting point was raised during the year regarding the keeping of a goat (male) in a byre. It is well known, of course, that this is superstitiously held by the farmers to prevent abortion. At any rate complaint in one instance was made against the practice, but, after thorough investigation into the matter, this Department came to the conclusion that a goat was a bovine animal, and no objection under the Act, or the By-laws, could possibly be made, and so the matter rests.

TABLE OF PREMISES REGISTERED AND PROVISIONALLY REGISTERED
AT THE END OF THE YEAR.

(1) Number of cowkeepers and dairymen within the district,	140
(2) Number granted registration,	82
(3) Number provisionally registered,	58
(4) Number of byre premises,	93
(5) Number registered,	35
(6) Number provisionally registered,	58
(7) Number not in need of repair and registered,	13
(8) Number of premises where repairs were carried out and premises registered,	22
(9) Number of premises where necessary repairs have been arranged,	44
(10) Number of premises where nothing has been done or arranged,	14

Premises where repairs have been carried out with notes of work done :—

Muirside Farm, Carmunnock.

5 additional 6-inch inlets led through lean-to byre to outside.

Burnside Farm, Rutherglen.

17 6-inch inlets in external wall, and 18 sq. ft. additional light provided.

Crosshill Farm, Rutherglen.

Wallhead beam filled.

Woodhead Farm, Garnkirk.

11 7-inch by 8-inch inlets provided, and Findlay Ridge outlet ventilator with 38 sq. ft. of glass.

Chryston Mains Farm, Chryston.

6 additional 6-inch inlets provided, and Findlay Ridge outlet ventilator with 36 sq. ft. of glass.

Hill of Chryston Farm, Chryston.

1 additional 6-inch inlet and 1 additional outlet louvre. 45 sq. ft. of glass provided. Passage repaired.

Gartferry Mains Farm, Chryston.

2 additional 7-inch by 8-inch inlets on external wall. 2 windows fixed open, one 3 feet by 4 inches, and one, 2 feet 6 inches by 4 inches. 45 sq. ft. of glass provided. Domestic washhouse provided.

Old Inn, Mollinsburn.

2 additional roof lights. New milk scullery.

Mollinhillhead Farm, Mollinsburn.

17 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 56 sq. ft. of glass. Wallhead beam filled. New milk scullery.

Langdales Farm, Moodiesburn.

12 7-inch by 7-inch inlets, and opening ridge ventilation, with 37 sq. ft. of glass. Wallhead beam filled.

Avenuehead Farm, Gartcosh.

No. 1 byre.—5 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 25 sq. ft. of glass.

No. 2 byre.—6 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 24 sq. ft. of glass. Wallhead beam filled. Domestic washhouse separated from milk scullery.

Midton Farm, by Moodiesburn.

9 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 32 sq. ft. of glass. Roof repaired. Wallhead beam filled. Domestic washhouse separated from milk scullery.

Gartcosh Farm, Gartcosh.

22 7-inch by 7-inch inlets. Additional roof lights with 49 sq. ft. of glass over all.

Leckethill Farm, Gartcosh.

No. 1 byre.—9 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 28 sq. ft. of glass. Wallhead beam filled.

No. 2 byre.—2 additional 7-inch by 8-inch inlets. Additional roof lights, with 12 sq. ft. of glass.

Gateside Farm, Stepps.

2 additional windows, 3 feet by 3 feet, half louvred.

Craigend Farm, Shettleston.

4 additional windows, 3 feet by 2 feet, top half to open.

Avenue-end Farm, Millerston.

Additional lights on roof. 14 sq. ft. of glass.

Cashneuk Farm, Millerston.

10 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 56 sq. ft. of glass. Wallhead beam filled. Position of door of milkhouse altered and new milk scullery erected.

Easter Queenslie Farm, Shettleston.

2 additional windows in gable with top portion louvred 3 feet 9 inches by 3 feet.

Wellhouse Farm, Shettleston.

10 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 16 sq. ft. of glass.

Wester Auchinloch Farm, Lenzie.

Findlay ridge outlet ventilator, with 21 sq. ft. of glass.

Wester Boghead Farm, Lenzie.

6 7-inch by 8-inch inlets, and Findlay ridge outlet ventilator, with 22 sq. ft. of glass. Floor of dungstead improved.

SEASONAL WORKERS.

Four applications were received from farmers and employers to house male and female workers at two farms. One of these applications was, in the first instance, refused, but on consultation with the Medical Officer of Health it was agreed that 9 male workers could be housed. The accommodation provided was not suitable for male and female workers, and it was difficult to convince the farmer on this point.

In many instances the farmers are more concerned with the price of their potatoes than with the health of the workers.

PIGGERIES.

The number of piggeries on the register at 31st December, 1928, was 33, and the approximate number of pigs in the District, including those at farm steadings and public institutions, was 3,807.

159 inspections were made to premises during the year. The premises have been generally kept clean and in a good state of repair.

The plans of one new piggery were submitted to the Committee, and received their approval, for erection adjoining the new Edinburgh Road, near Queenslie Colliery, Shettleston.

BURIAL GROUNDS.

Three inspections were made of burial grounds in the District, which were found in order. 3 burials were carried out in terms of Section 69 of the Public Health Act. In no case of burial by the Department was any of the cost recovered.

TENTS AND VANS.

In the course of the year 5 inspections were made.

In one case in the Stepps area a caravan had been on the site for a considerable period, and, as there was neither provision for water or sanitary convenience, which constitutes a breach of the By-laws, action was taken, but as the proprietor had gone and left his caravan it was some time before it was removed.

Near to this place a railway carriage was erected and occupied as a dwelling. The matter was reported to the Committee, who, taking into consideration that the occupier was an ex-service man in straitened circumstances, allowed him to remain until such time as they could offer him a house in one of the District Committee's Housing Schemes.

**STATEMENT BY THE SANITARY INSPECTOR OF PROCEEDINGS
UNDER THE PUBLIC HEALTH ACTS, 1897, HOUSING &c.,
(SCOTLAND) ACTS, 1909 TO 1925, AND OTHER ACTS,
DURING THE YEAR 1928.**

Nuisances.

Complaints received (verbal and written),	...	...	...	...	109
Visits of inquiry and inspection,	...	...	...	...	8,727
Intimations served in terms of Section 19 of Public Health Act,					121
Notices served in terms of Section 40 of Public Health Act,	...				2
Insanitary conditions dealt with by letter (letters issued),	...				206
Number of recurring nuisances dealt with by intimation,	...				100
Number of structural nuisances dealt with by intimation,	...				21
Nuisances abated,	...	...	...	...	129

Infectious Disease.

Visits of inquiry &c.,	...	...	...	...	...	554
Apartments disinfected by Sanitary Inspectors and Health Visitors,						207
Bedding and articles of clothing disinfected by Sanitary Inspectors and Health Visitors,	...	...	...	...	...	200
Sets of clothing destroyed,	...	...	...	...	...	2
Bed and bedding destroyed,	...	...	...	...	...	1
Intimations to parents and school teachers,	...	...	...	...	...	1,052
Throat and Nose Swabs taken,	...	...	...	...	...	37

Factories and Workshops.

Factory inspections,	...	...	...	...	...	114
Workshop inspections,	...	...	...	...	...	12
Inspections under Section 14 of Factory and Workshops Act,	...					3
Workshops registered during the year,	...	...	...	...	...	6
Removed from register,	...	...	...	...	...	1

Cowsheds and Dairies.

Number on Register at 1st January, 1928,	...	...	...	...	135
Registered during the year,	...	...	...	...	9
Removed from Register,	...	...	...	...	4
On Register at 31st December, 1928,	...	...	...	...	140
Inspections of dairy premises,	...	...	...	...	163
Letters to registered occupiers and owners,	...	...	...	...	101

Offensive Trades.

On Register at 1st January, 1928,	5
Applications for sanction to establish,	—
On register at 31st December, 1928,	5
Inspections,	101
Contraventions dealt with,	4
Letters to owners,	4

Drainage.

Visits <i>re</i> condition of house drains,	335
Drain inspections,	129
Defective drains disclosed,	5
Defects remedied,	5
Defective Drainage systems remedied or reconstructed,	20
Applications of smoke-test,	17
Number of properties tested,	15
Visits <i>re</i> provision of water-closets,	25
New water-closets provided,	43
Works urinals erected,	4
Connections to public sewers,	16
Inspections of connections,	16
Connections to private sewers,	10
Inspections of connections,	10
Sewer inspections <i>re</i> defects or chokages, &c.,	22
Sewer ventilation shaft removed,	1
Inspections of Sewage Purification Works,	206
Sewage Works cleansed,	8
Dustpans cleansed—Districts,	3
Manhole covers replaced,	5

Building By-Laws.**New Buildings, Alterations, Additions, &c.**

Number of plans lodged,	44
Number of plans approved,	44
Visits <i>re</i> plans lodged,	30
Inspections of new buildings, alterations, additions, &c., by Building Inspector,	1,240
Applications of smoke-test to drains and plumber work,	277
Number of properties tested,	247
Houses passed for occupancy,	722

Shops passed for occupancy,	2
Factory passed for occupancy,	1
Hall passed for occupancy,	1
Police Station passed for occupancy,	1
School passed for occupancy,	1
Additions passed for occupancy,	1

District Committee's Housing Schemes.

Visits by Building Inspector <i>re</i> sites, formation of roads, &c., ...	35
Inspections <i>re</i> progress of works,	292

Housing, &c. (Scotland) Acts, 1909 to 1925.

Number of dwelling houses inspected,	119
Number of dwelling houses inspected (secondary inspections), ...	139
Houses considered unfit for human habitation,	86
Houses in which defects were remedied by owners,	45
Representations made to Local Authority,	64
Houses for which Closing Orders were made,	63
Houses closed (voluntarily),	9
Demolition Orders made,	34
Houses demolished,	236
Visits <i>re</i> demolition of houses,	5
Notices served,	16

Miscellaneous.

Cemeteries—Inspections of burial grounds,	3
Visits <i>re</i> applications for burial,	2
Burials in terms of Section 69 of Public Health Act,	3
Pig-styes:—	
Number on Register at 31st December, 1928,	33
Inspections,	159
Approximate number of pigs in district at 31st December, 1928,	3,807
Tents and Vans—Inspections,	5
Houses Let in Lodgings—Inspections,	6
Public Schools—Inspections,	2
Ice Cream Shops—Inspections,	3
Fish and Chip Shops—Inspections,	4
Unsound Food—	
Inspections of premises,	4
Inspections of food,	2

Visits to premises alleged to be infested with rats,	36
Rat poison supplied,	6
House-to-house visits for the detection of dirty or overcrowded houses,	454
Refuse Coups—Inspections,	19
Visits <i>re</i> water supplies,	27
Samples of water taken for analysis,	1
Inspections of water storage cisterns,	1
Water supply introduced to houses,	5
Visits <i>re</i> housing of seasonal workers,	3
Common closes, stairs, and water closets—Inspections,	284
Date Cards issued,	3
Notices to owners in terms of Section 117 of Burgh Police Act, ...	13
Closes and stair walls whitewashed,	40
Notice and letter warnings <i>re</i> improperly fouling water closets, ...	36
Private streets and lanes—Inspections,	27
Scavenging—	
Inspections in Special Districts,	5,763
Privies constructed,	3
Privies demolished,	8
Privy middens demolished,	2
Notices served under Section 23 of Burgh Police Act,	26
Dustbins provided and renewed,	200

Lightburn Joint-Hospital.

Annual Report.

RESIDENT PHYSICIAN—H. MUIR DAVIE, M.B., Ch.B.

MATRON—MISS TOWNSEND, R.R.C.

The admissions and discharges during the year, classified according to constituent authority, and to the disease notified, are shown in Table A and Table B respectively.

TABLE A.

Disease.	In Hospital Jan. 1st, 1928.	Admitted.	Discharged. Recovered.	Died.	In Hospital. Dec. 31st, 1928.
Scarlatina, ...	30	251	250	1	30
Diphtheria, ...	36	128	137	9	18
Pneumonia, ...	14	124	92	28	18
Erysipelas, ...	2	16	15	—	3
Tuberculosis, ...	16	41	30	9	18
Puerperal Sepsis, ...	—	7	3	3	1
Measles, ...	—	6	3	2	1
Cerebro-spinal Meningitis, ...	—	4	1	2	1
Gonorrhœal Ophthalmia, ...	—	4	4	—	—
Parotitis, ...	—	7	7	—	—
Others,* ...	—	8	3	1	4
	98	596	545	55	94

*Dermatitis herpetiformis; Impetigo; Pemphigus; Trachoma, 2;
Tinea tonsurans, 2; Varicella.

TABLE B.

Cases Classified according to constituent authority.

Disease.	Lower Ward, Lanark.	Middle Ward, Lanark.	City of Glasgow.
Scarlatina, ...	86	121	44
Diphtheria, ...	58	47	23
Pneumonia, ...	36	39	49
Erysipelas, ...	8	8	—
Tuberculosis, ...	40	1	—
Puerperal Sepsis, ...	6	—	1
Measles, ...	3	—	3
Gonorrhœal Ophthalmia, ...	4	—	—
Cerebro-spinal Meningitis, ...	3	—	1
Parotitis, ...	7	—	—
Others, ...	7	—	—
	258	217	121

Compared with last year's returns there was an increase in the total number of admissions, due mainly to an increase in the number of scarlet fever cases, the figures for other diseases remaining fairly constant.

At the beginning of the year there were 98 cases in residence. The number of admissions was 596, making a total of 694. Of these 545 were discharged well, 55 died, leaving 94 cases in hospital at the end of the year.

Of the 55 deaths, 7 died within twenty-four hours of admission, and have been excluded in calculating the fatality rate. The figures thus corrected give a fatality rate of 8 per cent. as compared with 7·07 per cent. for the previous year.

The average monthly rate of admission was 49·7, the lowest number of admissions occurring in June and the highest number in March, the figures being 33 and 71 respectively.

The average daily number of patients resident was 77·8, the highest number in residence being 100 on 2nd January, and the lowest 51 on 1st September.

Scarlet Fever.

30 cases were in hospital at the beginning of the year. The number of cases admitted was 251, of which 250 were discharged well and 1 died, leaving 30 cases in residence at the end of the year.

THE AVERAGE DURATION OF RESIDENCE was, in mild cases, 38 days; in severe cases, 80 days, while the fatal case was in residence 8 days.

TYPE OF DISEASE.—The disease proved generally to be of a mild type. Of the 250 cases discharged, 205 were classified as mild, 35 as moderately severe, and 10 as very severe. Of the last group, 4 were septic.

THE FATALITY RATE as calculated on discharges was 0·4 per cent. The fatal case was a man of 41 years, admitted on the 13th day of disease, with albuminuria. On the 8th day after admission he developed uræmia and died in a few hours.

REVISED DIAGNOSIS.—The diagnosis was revised in 10 cases, as follows:—Diphtheria, 1; doubtful, 2; chickenpox, 1; enteritis, 1; measles, 1; negative, 2; septic rashes, 2.

COMPLICATIONS.—38 per cent. of the discharges had one or more complications as follows :—

Glands.—41 cases, or 16 per cent., had glandular enlargement. In 2 cases suppuration resulted.

Ear.—21 cases, or 8 per cent., developed otitis media. In 1 case mastoidectomy was performed.

Nose.—36 cases, or 14 per cent., developed rhinitis.

Joints.—9 cases, or 3·6 per cent, developed arthritis. 2 of these were of the suppurative type requiring surgical interference.

Kidneys.—4 cases, or 1·6 per cent., had true nephritis. There were 5 cases of mild albuminuria.

Heart.—4 cases had functional heart murmurs and 3 cases arrhythmia

OTHER COMPLICATIONS were :—Blepharitis, 1 ; cellulitis, 1 ; enteritis, 1 ; paronychia, 3 ; serum urticaria, 2 ; secondary rash, 1.

MIXED INFECTIONS :—Chickenpox, 10 ; diphtheria, 2 ; measles, 3.

Diphtheria.

36 cases were in hospital at the beginning of the year. 128 cases were admitted, 137 discharged, and 9 died, leaving 18 in residence at the end of the year.

THE AVERAGE DURATION OF RESIDENCE of recovered cases was 42 days, and of fatal cases 7 days.

TYPE OF DISEASE—

BACTERIOLOGICAL.—7 cases presented no symptoms, although the organism had been recovered from the throat.

FAUCIAL—

MILD.—70 cases were of a mild type. The average amount of antitoxin given was 8,000 units.

COMPLICATIONS.—Adenitis, 1 ; arrhythmia, 5 ; cardiac murmur, 2 ; serum rash, 1 ; tonsillitis, 1.

MODERATE.—18 cases were of a moderate type. The average amount of antitoxin given was 12,000 units.

COMPLICATIONS.—Adenitis, 1 ; arrhythmia, 2 ; enteritis, 1 ; serum rashes, 2.

SEVERE.—19 cases, including 3 fatal cases, were of a severe type. The average amount of antitoxin given was 24,000 units.

COMPLICATIONS.—Adenitis, 1; albuminuria, 4; arrhythmia, 4; broncho-pneumonia, 1; palatal paresis, 3; palatal and pharyngeal paresis, 1; generalised paralysis, 1; strabismus, 1; serum rash, 1.

LARYNGEAL.—In 11 cases the larynx alone was involved, while in 11 cases the fauces were also affected. 4 of these died. The average amount of antitoxin given was 15,000 units. Tracheotomy was performed in 6 cases; 3 recovered.

COMPLICATIONS.—Otitis, 2; strabismus, 1; adenitis, 1; arrhythmia, 1; vaginitis, 1; cardiac paralysis, 2.

TRACHEO-BRONCHIAL.—In 1 case the trachea and bronchi were affected. Tracheotomy failed to relieve the breathing and the patient died. This case received 30,000 units antitoxin.

FAUCIAL AND NASAL.—In 9 cases the fauces and nose were involved. These cases received an average of 20,000 units antitoxin.

COMPLICATIONS.—Albuminuria, 1; mastoiditis, 1.

ALTERED DIAGNOSES.—Scarlatina, 2; measles, 3; laryngitis, 1; tonsillitis, 4.

FATAL CASES.—Of the 9 fatal cases 4 were faucial, 4 laryngeal, and 1 tracheo-bronchial. The average period of residence was 7 days. The average amount of antitoxin administered was 30,000 units.

ANTITOXIN.—10 cases, or 3·4 per cent., of discharges had antitoxin before admission to hospital.

Pneumonia.

14 cases were in residence at the beginning of the year, 123 were admitted, of which 16 were wrongly diagnosed, 92 were discharged well, and 27 died, leaving 18 cases in hospital at the close of the year.

CLASSIFICATION.—Lobar, 61; bronchial, 38; influenzal, 3; unresolved, 1.

THE FATALITY RATE calculated on discharges was 23 per cent.

COMPLICATIONS.—Blepharitis, 1; empyema, 6; meningism, 1; otitis media, 2; pleurisy with effusion, 1; residual abscess, 1.

OTHER CONDITIONS PRESENT.—After measles, 7; after whooping-cough, 2; varicella, 2.

CORRECTED DIAGNOSIS.—Bronchitis, 4; epidemic encephalitis, 1; gastritis, 1; influenza, 1; malnutrition, 2; measles, 1; pleurisy with effusion, 1; puerperal sepsis, 1; pulmonary tuberculosis, 3; tubercular meningitis, 1.

Erysipelas.

2 cases were in residence at the beginning of the year, 16 were admitted, of which 1 was wrongly diagnosed. Of these, 15 cases recovered, leaving 3 cases in hospital at the close of the year.

SITUATION OF DISEASE.—Face, 6; leg, 3; face and scalp, 3; scalp, 2.

THE AVERAGE AGE was 34 years, and the average duration of residence, 30 days.

COMPLICATIONS.—Albuminuria, 1; residual abscess, 2.

CORRECTED DIAGNOSIS.—Impetigo, 1.

Tuberculosis.

16 cases were in residence at the commencement of the year, 41 cases were admitted, 30 discharged, and 9 died, leaving 18 cases in hospital at the end of the year.

THE FATAL CASES, 9 in number, were all pulmonary. The average age was 31 years. 2 of these were of the acute pneumonic type, the other 7 cases being of the chronic type.

DISCHARGES.—30 cases were discharged classified as follows:—

Pulmonary—16 cases improved.

Glandular—1 case improved.

Bones and Joints—6 cases improved.

Lupus—1 case improved.

Abdominal—3 cases improved.

Altered diagnosis—3 cases with no evidence of tubercle.

ALTERED DIAGNOSIS.—Pneumonia, 1; chronic bronchitis, 1; gastro-enteritis, 1.

X-RAY.—12 cases were sent to Motherwell County Hospital for X-ray examination. 10 were positive.

The average stay in hospital was over 3 months in most cases. The mercury vapour lamp was used throughout the year as an adjuvant to other treatment in non-pulmonary cases.

The social side of the treatment was not neglected. As in previous years, several entertainments were enjoyed by the patients throughout the winter months.

Puerperal Sepsis.

No cases were in hospital at the beginning of the year. 7 cases were admitted, 3 discharged, and 3 died, leaving 1 case in residence at the end of the year. 3 cases were attended by doctors and 4 by midwives.

FATAL CASES.—Two of the fatal cases were of the septicæmic type, and both died within 48 hours of admission. The other case developed pulmonary embolism.

TREATMENT consisted mainly in douching and nursing in the semi-recumbent position. Intra-uterine injections of glycerine were also tried in suitable cases.

Cerebro-Spinal Meningitis.

No cases were in hospital at the beginning of the year. 4 cases were admitted, of which 2 were wrongly diagnosed, 1 died, leaving 1 case in hospital at the end of the year.

The fatal case was proved bacteriologically, but died a few hours after admission.

ALTERED DIAGNOSIS.—Broncho-pneumonia, 1; T.B. meningitis, 1.

Gonorrhœal Ophthalmia.

No cases were in hospital at the beginning of the year. 4 cases were admitted during the year and all made good recoveries. 3 of these cases were ophthalmia neonatorum. The other case was a female of 6 years who lived in the same house as one of the cases.

Parotitis.

7 cases were admitted during the year from St. Mary's Industrial School, Bishopbriggs. All were discharged well.

The cases were all of a mild nature, all being uncomplicated, except one which developed orchitis.

Measles.

No cases were in hospital at the beginning of the year. 6 were admitted, 3 discharged well, and 2 died, leaving 1 case in hospital at the end of the year.

THE FATAL CASES were both found to be suffering from broncho-pneumonia as a complication.

COMPLICATIONS.—Adenitis, 1; broncho-pneumonia, 2; laryngitis, 1; tonsillitis, 1.

Other Diseases.

The remaining discharges were as follows:—Dermatitis, 1; impetigo, 1; trachoma, 1; pemphigus, 1.

Ambulance Work.

						Miles.
Admissions, ...	...	..	...	...	...	4,812
Dismissals, ...	...	...	...	...	...	2,658
Other runs, ...	...	...	...	...	...	1,620
Total Mileage, ...						<u>9,090</u>

Grounds and Buildings.

A motor lawn-mover was purchased and proved of great benefit.

Pavilion II was redecorated during the summer.

Staff.

The indoor staff at the end of the year comprised 1 resident physician, 1 matron, 5 sisters, 1 staff nurse, and 20 probationer nurses. In addition there were 14 maids and 1 cook.

The outdoor staff comprised 1 staff foreman, 2 mechanics, 1 chauffeur-gardener, and 1 gardener.

The health of the staff throughout the year was satisfactory.

